Twelve Years of Farm Accounts in Illinois

By P. E. Johnston
and H. C. M. Case

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FOREWORD

Primary data from more than 18,000 farm records covering a twelve-year period, 1926-1937, are presented in this bulletin. Altho the farms from which the records were secured were operated by better-than-average farmers, an analysis of year-to-year changes in land use, production, investments, income, expenditures, and earnings on their farms gives a better picture of the reactions of farmers to changing economic conditions than is available from any other source.

The data are presented in detail so they will be available to any who wish to use them for additional studies. The material presented here should be of special interest to representatives of governmental agencies, farmer organizations, industrial interests, lending agencies, and to teachers and research workers in the field of agricultural economics.

The period covered by this study was one of violent price changes and provides a good basis for studying the adjustments that efficient farmers make in their farming operations in response to price changes, Government programs, and technological improvement. The analysis of the data by farming-type areas, by size of farm, and by source of income gives further opportunity to study the effect of economic changes on farms representing a wide range in physical conditions.

CONTENTS

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By P. E. Johnston and H. C. M. Case[1]

FARM FINANCIAL and production records provide information concerning the operation of Illinois farms not available from any other source. Such records kept by Illinois farmers since 1916 in cooperation with the Extension Service of the University of Illinois mirror the reactions of farm operators to a wide range of physical and economic conditions. They show the influence on land use and farm earnings of changes in the level of prices, of the Agricultural Adjustment programs, and of the type of machinery and power available.

This bulletin is based on an analysis of such records for the twelve-year period 1926-1937. The distribution by farming-type areas and by years of the 16,946 records from the state-wide project is indicated in Table 1. These records were used in the portion of the study reported on pages 198 to 225. Additional records from the Farm-Bureau Farm-Management Service for the ten-year period 1926-1935 were included in the study reported on pages 225 to 249.[2]

The farms from which these records were secured are for the most part commercial farms—that is, they are operated as a business and for the purpose of making a profit. The farms are on land that is better than average; they are larger than average; and they carry more livestock than the average farm. The operators are efficient managers, and their earnings are much above the level of all farmers

[1]P. E. Johnston, Chief in Agricultural Economics; and H. C. M. Case, Chief in Farm Management.

[2]The state-wide extension project in farm accounts has been an organized extension project since 1916. Any Illinois farmer may enroll with the farm adviser in his county as a cooperator in this project. Records are kept by the cooperating farmers in the Illinois Farm Account Book and are summarized at the University of Illinois after they have been checked for accuracy and completeness at the farm adviser's office by a representative of the Department of Agricultural Economics. The records include a beginning and closing inventory, cash receipts, cash farm business expenditures, and a record of crop acreages and production.

The Farm-Bureau Farm-Management Service is a project in which farmers pay a fee for accounting and management service. It was organized in central Illinois in 1925 and is now (1942) operating in 31 counties. The full time of a fieldman is provided for each 225 cooperators, and the records include more detailed information than do those secured thru the state-wide project.

in the community in which they live. These farm records, therefore, do not represent a cross-section of agriculture in Illinois but rather represent the better-managed farms. On the accounting farms operators will be found who are first to take up new and improved practices. An analysis of their records will establish goals to be attained by less efficient operators.

The difference between accounting farms and average farms in the same farming-type area and in the whole state is indicated in Table 2. In 1939 accounting farms averaged 62 percent larger than the average of all farms in Illinois. Accounting farms had a higher per-

TABLE 1.—NUMBER OF ACCOUNTING RECORDS OBTAINED FOR ANALYSIS FROM ILLINOIS STATE-WIDE EXTENSION PROJECT: BY FARMING-TYPE AREAS AND BY YEARS, 1926-1937

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Total
1926.....	65	69	190	284	104	119	30	33	894
1927.....	87	130	229	273	150	93	52	49	1 063
1928.....	124	134	298	262	196	125	69	39	1 247
1929.....	138	168	364	262	257	147	79	44	1 459
1930.....	145	189	263	381	281	205	60	48	1 572
1931.....	152	179	271	291	297	204	101	43	1 538
1932.....	153	178	216	185	282	201	71	36	1 322
1933.....	117	168	237	206	262	160	64	31	1 245
1934.....	131	211	289	314	257	190	63	35	1 490
1935.....	53	197	306	411	272	256	77	39	1 611
1936.....	67	227	277	421	316	233	83	34	1 658
1937.....	70	285	342	494	284	267	62	43	1 847
Total.....	1 302	2 135	3 282	3 784	2 958	2 200	811	474	16 946

centage of tillable land, and the land was valued $17 an acre more than the average. Investments in machinery and buildings were higher on the accounting farms. The value of products produced per farm was more than twice as much on the accounting farms as on average farms and the value per acre was 48 percent larger. The least difference between accounting farms and other farms was in Area 1 and the greatest difference was in Area 7.

The fact that the accounting farms are not average farms does not invalidate the use of their records for many interesting comparisons. They can be used to show variations in investment, income, expenditures, and earnings resulting from changing price-levels. They are useful for contrasting the organization features of the farms in different farming areas of Illinois. They show the effect of size of farm on land use, cost of operations, and farm earnings. A study of land utilization on the accounting farms indicates how progressive farmers reacted to the Agricultural Adjustment programs. The records also show how farm organization and farm earnings vary because of variations in the major source of income.

For the purposes of this study the records were grouped by major farming-type areas as indicated in Fig. 1. These areas differ widely in soils, climate, topography, and markets.[1] Records were available for

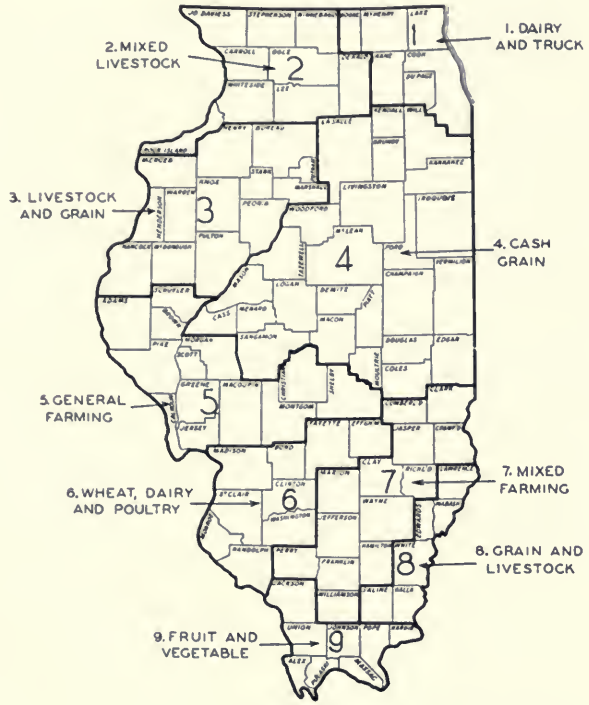

FIG. 1.—FARMING-TYPE AREAS IN ILLINOIS

all areas except Area 9. The largest number of available records was for Area 4 and the smallest number for Area 8 (Table 1).

PRICES FOR THE PERIOD 1926-1937

Changes in investment, income, and expenditures on Illinois accounting farms must be studied in relation to changes in the price-level of products sold and supplies purchased. The period 1926-1937 was one of violent price changes: from 1926 to 1929 the index of Illinois farm prices ranged from 136 to 145 (1910-14 = 100); from 1929 to 1932 the index slumped from 145 to a low of 58; but from 1932 to 1937 the index rose to 134 (Fig. 2). For the period 1926-1930 the

[1] On pages 209 to 216 the effect of these factors on the organization, operation, and income of the accounting farms is analyzed.

TABLE 2.—ILLINOIS ACCOUNTING FARMS COMPARED WITH ALL FARMS IN THE SAME FARMING-TYPE AREAS, 1939[a]

Area	Acres per farm		Percent of land tillable		Value of land per acre		Value of machinery and equipment per farm		Value of buildings per farm		Value of products sold, traded, or used by farm households			
											Value per farm		Value per acre	
	Census	Accounting	Census	Accounting	Census	Accounting	Census	Accounting	Census	Accounting	Census	Accounting	Census	Accounting
1	106	171	82.0	78.2	$90	$78	$1 050	$2 058	$5 633	$5 873	$2 814	$4 769	$26.55	$27.89
2	156	209	80.5	83.6	57	92	1 174	2 219	4 527	5 674	2 666	6 295	17.09	30.12
3	162	249	77.9	80.3	68	96	1 072	2 355	3 599	4 943	2 741	7 033	16.92	28.24
4	174	267	88.7	90.0	91	116	1 312	2 531	3 922	4 838	3 156	6 665	18.14	24.96
5	155	261	73.4	78.6	45	70	721	1 948	2 284	3 453	2 088	5 603	13.47	21.47
6	132	202	86.6	79.5	33	49	578	1 651	1 982	2 690	1 391	3 413	10.54	16.90
7	104	227	81.1	82.4	23	34	291	1 197	1 095	2 118	712	2 821	6.85	12.43
8	125	217	82.8	86.5	35	46	457	1 323	1 435	1 896	1 026	3 131	8.21	14.43
9	116	186	66.9	80.0	20	28	305	1 119	1 129	3 315	787	2 632	6.78	14.15
Weighted average	145	235	81.0	83.2	$61	$78	$ 875	$1 980	$2 999	$4 023	$2 174	$5 220	$14.99	$22.21

[a]Averages for all farms are from 1940 U. S. Census.

index of prices paid by farmers for commodities used in production was at practically the same level as prices received, but from 1930 to 1935 prices received dropped far below prices paid. The effect on farm incomes of the decline in farm prices without a corresponding decline in prices paid for commodities used in production is discussed in detail on pages 202 to 209.

Effect of Price Changes on Incomes

Fluctuations in prices of individual farm products must be considered when interpreting variations in income between farming-type areas and in analyzing records grouped according to source of income. For example, in the cash grain area (No. 4) and in parts of the general farming area (No. 5), price changes of corn, oats, and soybeans had the most effect on earnings. In the Chicago dairy area (No. 1),

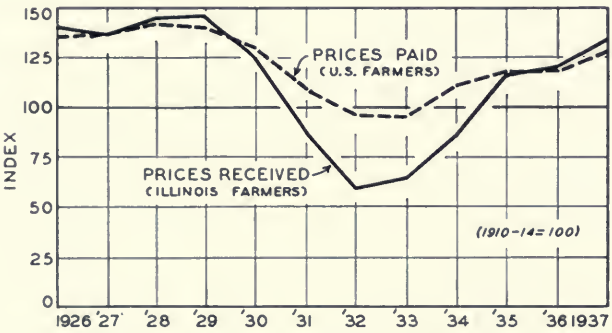

FIG. 2.—PRICES RECEIVED BY ILLINOIS FARMERS FOR PRODUCTS SOLD AND U. S. PRICES PAID FOR COMMODITIES USED IN AGRICULTURAL PRODUCTION, 1926-1937

the price of dairy products had the greatest influence, and the prices of dairy products and wheat in the St. Louis dairy area (No. 6). In Areas 2 and 3 and in parts of Area 5 the price of beef cattle and hogs had the greatest influence on incomes.[1]

From 1926 to 1932 the price of wheat in Illinois declined more rapidly than the price of corn, and the price of soybeans declined even more rapidly than the price of wheat. During this seven-year period soybean production expanded rapidly, while the cost of production declined and the major demand shifted from use for seed purposes to use in industry. From 1926 to 1932 the yearly average price of corn declined from 64 cents to 25 cents a bushel; oats, from 38 cents to 17 cents; wheat, from $1.48 to 40 cents; and soybeans, from $2.13 to

[1]The effect of prices on variations in incomes by farming-type areas is discussed more fully on pages 212 and 213.

35 cents. By 1937 the average prices of wheat, corn, and soybeans were more nearly equal than in 1926, ranging only from $1.02 a bushel for wheat to $1.18 a bushel for soybeans (Fig. 3). The average price of oats was 40 cents a bushel in 1937. The price of both corn and oats was therefore higher at the end of the twelve-year period than at the be-

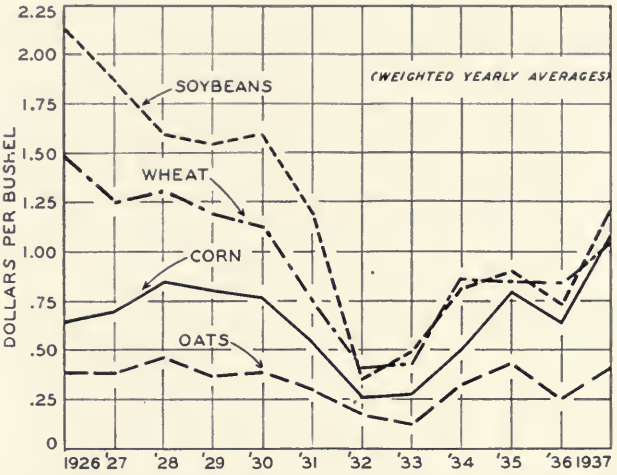

FIG. 3.—ILLINOIS FARM PRICES OF FOUR GRAINS, 1926-1937

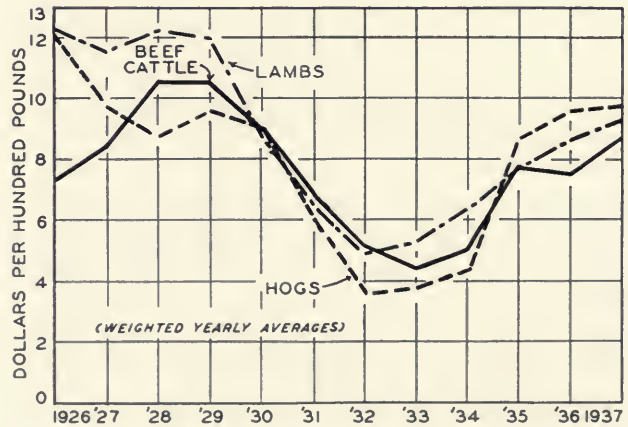

FIG. 4.—ILLINOIS FARM PRICES OF MEAT ANIMALS, 1926-1937

ginning, but wheat and soybeans were both lower. The higher prices for farm products in 1937 resulted primarily from a shortage of supplies caused by the drouth in 1936 and by a relatively high level of industrial production; in late 1937 and in 1938 farm prices dropped sharply.

Prices of livestock and livestock products as a whole followed the major variations of the general price-level, but there were variations in the prices of individual products, due chiefly to differences in supply. The price of beef cattle advanced in 1926, 1927, and 1928, the latter year marking the end of a cycle of declining numbers of beef cattle on farms in the United States; beef-cattle prices reached a low of $4.35 a hundred in 1933. The lowest yearly average price for hogs was $3.55 and for lambs, $4.90, both occurring in 1932 (Fig. 4).

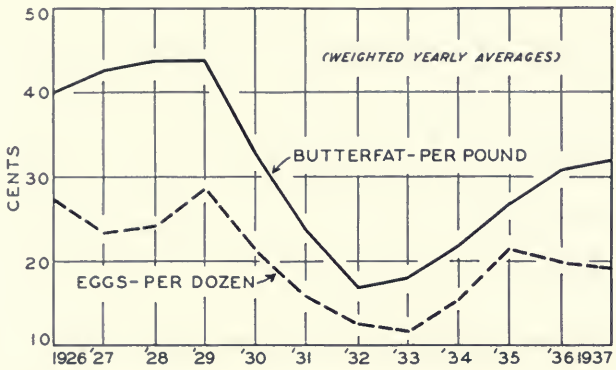

FIG. 5.—ILLINOIS FARM PRICES OF EGGS AND BUTTERFAT, 1926-1937

The price of butterfat declined from 44 cents a pound in 1929 to 17 cents in 1932 but increased to 32 cents in 1937 (Fig. 5). The price of eggs averaged 28.6 cents a dozen in 1929, 11.9 cents in 1933, and 19.3 cents in 1937. The price of butterfat affected incomes in all parts of Illinois since butterfat production is widely distributed over the state. The price of poultry and eggs affected incomes greatly only in Areas 6 and 7.

The relative prices of grain and meat animals had an important bearing on the analysis of income by farming-type areas and on comparisons of farms grouped by source of income. The Illinois farm-price index (1910-14 = 100) for meat animals was as high or higher than the index for grain each year of the period 1926-1937 with the exception of 1934 (Fig. 6).

Prices of Commodities Used in Farm Production

As previously stated, the index of prices paid by farmers for commodities used in production declined from 1929 to 1933 but declined less rapidly than the index of prices received for farm products. The index of prices paid[1] was 141 in 1929 (1910-14 = 100), 96 in 1933, and

[1]This index does not include prices paid for family living.

126 in 1937. Prices of farm machinery declined less than did those of other goods and services, the decline from 1929 to 1933 being only 9.2 percent.[1] During the same period building materials declined 18.9 percent, equipment and supplies[2] 25.9 percent, taxes 33.5 percent, and farm wages 52.8 percent (Figs. 7 and 8).

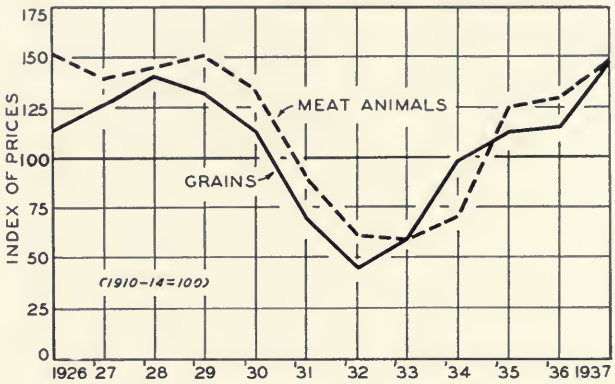

FIG. 6.—ILLINOIS FARM PRICE INDEXES FOR GRAINS AND MEAT ANIMALS, 1926-1937

In 1937 the U. S. index of taxes was at the same level as in 1933; however, equipment and supplies advanced 13 percent during this period, building materials advanced 18 percent, and farm wages went up 48 percent.

The ratio of prices received for Illinois farm products to U. S. prices paid for commodities used in agricultural production was equal to or above the 1910-14 level in six of the twelve years included in this study, as shown below:

Year	*Ratio*	*Year*	*Ratio*	*Year*	*Ratio*
1926.....	103.0	1930.....	96.1	1934.....	77.3
1927.....	100.0	1931.....	78.2	1935.....	99.1
1928.....	101.4	1932.....	60.4	1936.....	102.6
1929.....	102.8	1933.....	65.6	1937.....	106.3

[1]The unfavorable ratio of prices received to prices paid compelled farmers to adjust many of their spending habits during the depression years; for example, since horses cost less than machinery, few tractors and little tractor-drawn equipment was purchased during these years.

[2]Equipment and supplies, as given by "Income Parity for Agriculture," May, 1939, published by the U. S. Department of Agriculture, includes such items as axes, baskets, twine, halters, hoes, etc. The same listing has been used by the U. S. Department of Agriculture for many years, except that motor fuel, oil, and tires are now listed in a separate classification. Fuel, oil, and tires are not included under "equipment and supplies" in this bulletin.

Because agriculture is a highly competitive industry, a large part of the farm income must normally be used to pay the operating expenses of the farm, and a relatively modest return is made on the farm investment. Hence changes in the ratio of the price of the products which the farmer buys and those which he sells have a tremendous influence upon the net return from the farming enterprise.

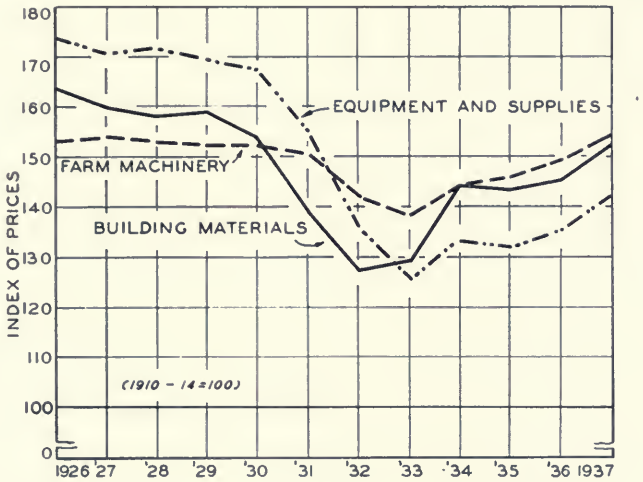

FIG. 7.—PRICES PAID BY U. S. FARMERS FOR BUILDING MATERIALS, FARM MACHINERY, AND EQUIPMENT AND SUPPLIES, 1926-1937

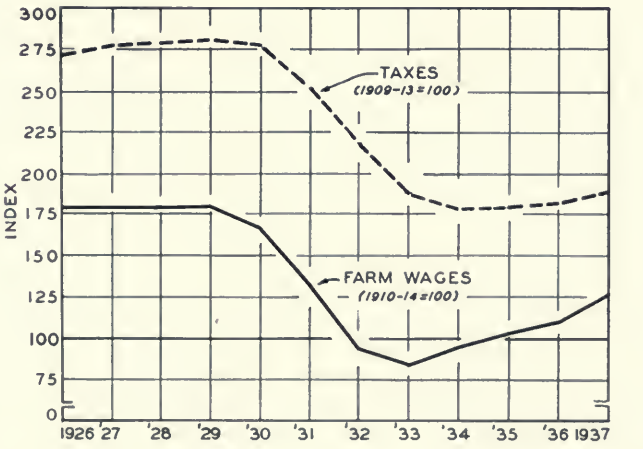

FIG. 8.—PRICES PAID BY U. S. FARMERS FOR FARM WAGES AND TAXES, 1926-1937

The spread in this ratio from 60.4 in 1932 to 106.3 in 1937 represents about a 75-percent change. Farmers receive practically no return for their investment in a period like 1932, but do receive a reasonable return in a period like 1937.

Farm account records, which include all items of farm income and expense as well as changes in inventory of the farm business, provide the only accurate means of determining the influence of prices on the net earnings of agriculture.

CHANGES IN INVESTMENTS, INCOMES, AND EXPENDITURES

Investments

The average inventory value of Illinois farm property, as indicated by these records, declined from 1927 to 1935 but recovered somewhat in both 1936 and 1937. The weighted average[1] investment for an Illinois accounting farm was $37,200 in 1927, $25,891 in 1935, and $27,435 in 1937 (Table 3 and Fig. 9). The total farm investment includes the value at the beginning of the year of land, improvements, livestock, machinery, and feed and grain.

Land. The inventory value of land was the largest part of the farm investment, but the percentage that it occupied of the total farm investment varied from year to year, as indicated by the following data:

Year	*Percent of total investment in land*	Year	*Percent of total investment in land*	Year	*Percent of total investment in land*
1926	72.1	1930	69.0	1934	70.0
1927	72.3	1931	70.1	1935	68.3
1928	72.4	1932	70.5	1936	66.8
1929	70.1	1933	72.1	1937	65.5

The valuation of land declined from $26,905 a farm in 1927 to $17,691 in 1935.[2] Since the value per farm is a product of the value per acre and the number of acres per farm, trends in both factors will be examined.

From 1926 to 1937 the accounting farms increased in size and

[1]Averages were calculated for farming-type areas by giving each farm-business report in the area equal weight. Area averages were then weighted by the number of census farms in the area to determine state averages.

[2]The account keepers were urged not to change the valuation of their land in response to short-time changes in prices. However, when new cooperators entered the project during the period when land values were declining, they usually started their records with valuations lower than those of the older cooperators; the land valuations of the older cooperators were therefore gradually lowered in order to keep the records comparable.

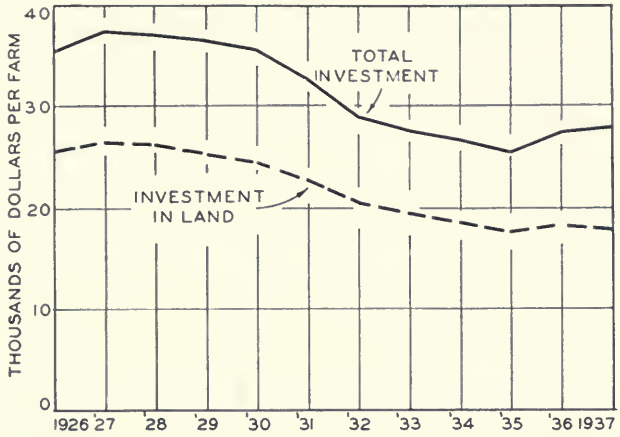

FIG. 9.—TOTAL INVESTMENT PER FARM AND INVESTMENT IN LAND, ILLINOIS ACCOUNTING FARMS, 1926-1937

declined sharply in average inventory value of land per acre, as shown by the following data and by Fig. 10:

Year	*Acres per farm*	*Valuation of land per acre*	*Year*	*Acres per farm*	*Valuation of land per acre*
1926	199	$130	1932	219	$94
1927	203	133	1933	218	91
1928	206	129	1934	223	83
1929	207	122	1935	216	82
1930	215	115	1936	227	81
1931	219	105	1937	227	79

It is evident that the decline in the valuation of land per acre was relatively greater than the decline per farm, since the average size of farm increased during the period studied.

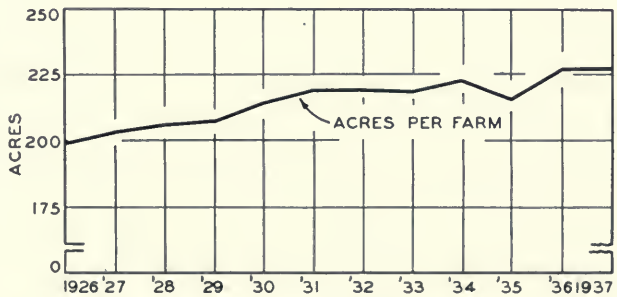

FIG. 10.—ACRES PER ILLINOIS ACCOUNTING FARM, 1926-1937

TABLE 3.—INVESTMENT PER ILLINOIS ACCOUNTING FARM IN LAND, IMPROVEMENTS, LIVESTOCK, MACHINERY, AND FEED AND GRAIN, 1926-1937

Items	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Land	$25 871	$26 905	$26 598	$25 346	$24 763	$22 910	$20 482	$19 764	$18 543	$17 691	$18 291	$17 960
Improvements[a]	3 785	3 958	3 802	4 105	4 113	3 922	3 850	3 659	3 601	3 497	3 560	3 513
Livestock	2 728	2 852	2 682	2 831	2 955	2 437	1 928	1 699	1 594	1 721	2 416	2 375
Machinery	1 306	1 418	1 598	1 540	1 649	1 579	1 444	1 329	1 241	1 249	1 464	1 667
Feed and grain	2 193	2 067	2 052	2 330	2 397	1 841	1 364	960	1 523	1 733	1 646	1 920
Total	$35 883	$37 200	$36 732	$36 152	$35 877	$32 689	$29 068	$27 411	$26 502	$25 891	$27 377	$27 435

[a]Exclusive of the value of the dwelling.

Improvements and machinery. Each year improvements and machinery were depreciated in the account records on the basis of the farmer's estimate of the life of each item. The inventory value of these items was therefore influenced both by the rate of depreciation and by the amount of money spent for new improvements, machinery, and repairs. The amount of money spent was influenced in turn by the cash farm incomes.

The valuation of improvements per farm increased from 1926 to 1930 and declined for the remainder of the period studied (Fig. 11 and Table 3). The valuation of machinery per farm increased from

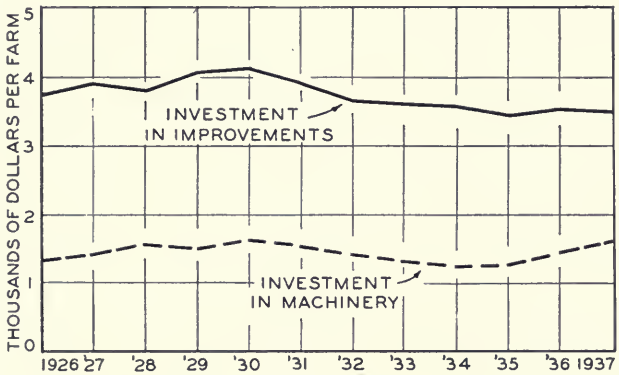

FIG. 11.—INVESTMENT IN IMPROVEMENTS AND MACHINERY PER ILLINOIS ACCOUNTING FARM, 1926-1937

1926 to 1930, declined until 1934, and increased again until 1937 (Fig. 11, Table 3). The decline from 1930 to 1934 was due to the sharp slump in cash farm business expenditures for machinery.

Livestock and feed and grain. The inventory value of livestock and feed and grain is determined by the amounts on the farm and their market price. During the period studied both the quantity and the price of livestock and feed and grain on accounting farms fluctuated violently as a result of the drouths of 1934 and 1936 and of the Agricultural Adjustment programs.

The largest average investment in livestock on accounting farms was $2,955 a farm on January 1, 1930, and the smallest was $1,594 a farm on January 1, 1934. The total amount of livestock on all Illinois farms was largest on January 1, 1933, and smallest on January 1, 1935 (Fig. 13 and Table 21[1]).

Inventory value of feed and grain was largest on January 1, 1930, and smallest on January 1, 1933, when grain prices were so low that

[1]Tables 21 thru 29 are in the Appendix, pages 257 to 271.

the abnormally large supplies resulting from the 1932 corn crop were worth only 40 percent as much as the average inventory of feed and grain on January 1, 1930.

Cash Farm Incomes

The average cash income of the accounting farms declined from $5,622 in 1929 to $2,505 in 1932 and then increased, so that the income for 1936 and 1937 was about equal to the average for the period 1926-1929 (Table 4). It must be remembered, however, that in 1937 farms were, on the average, 28 acres larger than farms in 1926.

Grain sales made up 27.4 percent of the average cash farm income on the accounting farms for the twelve-year period, and was the largest single source of income, altho the income from hogs was nearly as large (Table 4). Income from livestock and livestock products accounted for 65 percent of the total cash farm income for the period.

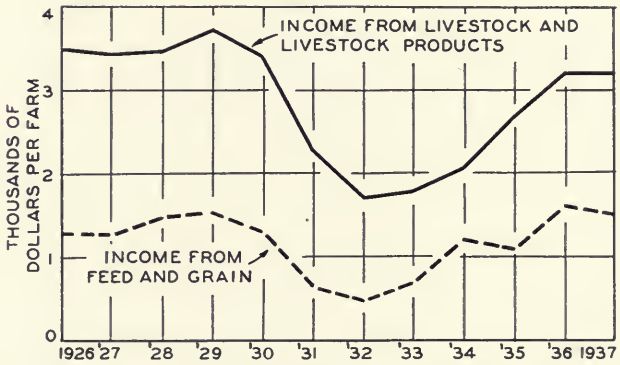

FIG. 12.—AVERAGE CASH INCOME FROM LIVESTOCK AND LIVESTOCK PRODUCTS AND FROM FEED AND GRAIN PER ILLINOIS ACCOUNTING FARM, 1926-1937

The yearly cash incomes from both livestock and grains varied with changes in prices of these products (Fig. 12). The income from livestock and livestock products reached its peak in 1929, when it averaged $3,742 a farm. There was a rapid decline from 1929 to 1932, when the average was only 46 percent of the 1929 level. It increased again from 1932 to 1937, when it was $3,223 a farm.

Changes from year to year in the quantity of livestock available for market from Illinois farms can be roughly measured from statistics showing the number of livestock on farms on January 1 of each year.[1]

[1]A single measure of the quantity of livestock on Illinois farms has been calculated for cattle, hogs, sheep, and horses and mules in terms of grain-consuming animal units.

TABLE 4.—CASH INCOME PER ILLINOIS ACCOUNTING FARM, BY SOURCES, 1926-1937

Source of income	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	Average percent of income
Cattle	$ 943	$ 986	$ 970	$1 029	$ 889	$ 556	$ 568	$ 500	$ 623	$ 784	$1 018	$1 014	18.5
Dairy products	572	714	716	729	622	460	373	387	409	489	588	668	12.6
Hogs	1 654	1 429	1 431	1 574	1 581	986	592	703	827	1 144	1 341	1 239	27.2
Poultry and eggs	337	317	367	410	326	258	204	201	239	320	297	302	6.7
Total livestock and livestock products	$3 506	$3 446	$3 484	$3 742	$3 418	$2 260	$1 737	$1 791	$2 098	$2 737	$3 244	$3 223	65.0
Feed and grains	$1 310	$1 292	$1 469	$1 530	$1 323	$ 732	$ 567	$ 785	$1 286	$1 181	$1 629	$1 548	27.4
Miscellaneous[a]	300	339	338	350	303	245	201	230	308	424	500	538	7.6
Total cash income	$5 116	$5 077	$5 291	$5 622	$5 044	$3 237	$2 505	$2 806	$3 692	$4 342	$5 373	$5 309	100.0

[a]Includes income from horses, machinery, improvements, labor off the farm, and other income.

Note. In 1934 and 1935 the Agricultural Adjustment Administration payments for participation in the hog program were credited to hog sales and those for participation in the wheat and corn programs were credited to feed and grain. In 1936 and 1937 the payments were credited entirely to grain.

TABLE 5.—CASH BUSINESS EXPENDITURES PER ILLINOIS ACCOUNTING FARM, 1926-1937

Item	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Improvements	$ 228	$ 267	$ 237	$ 264	$ 237	$ 118	$ 73	$ 93	$ 127	$ 185	$ 212	$ 274
Machinery	512	508	517	646	543	333	254	303	401	683	841	956
Feeds	484	593	697	592	630	326	193	236	413	488	612	656
Livestock purchased	740	687	745	723	555	365	376	292	327	569	602	657
Crop expense	182	194	209	208	201	166	107	98	144	174	205	276
Labor	348	369	376	364	337	262	189	164	180	236	261	306
Taxes	313	337	326	305	322	315	290	253	214	206	231	234
Miscellaneous	87	85	73	75	79	67	55	55	59	64	70	65
Total	$2 894	$3 040	$3 180	$3 177	$2 904	$1 952	$1 537	$1 494	$1 865	$2 605	$3 034	$3 424

The number of livestock in Illinois increased from 1926 to 1928, declined in 1929 and 1930, increased to a very high level in 1933 and 1934, declined precipitously during 1934 as a result of the drouth and the corn-hog program, and remained at a low level for the rest of the period (Fig. 13 and Table 21).

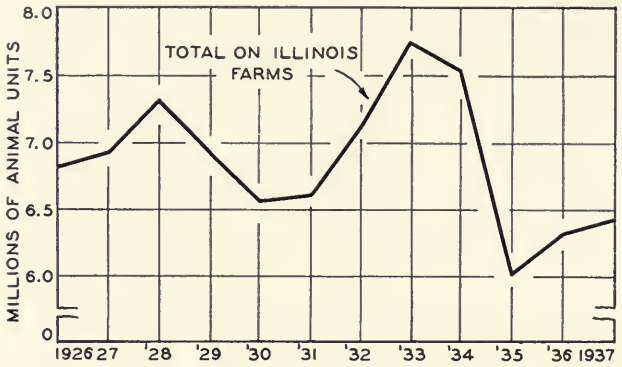

FIG. 13.—ANIMAL UNITS ON ILLINOIS FARMS, 1926-1937

The average cash income from the sale of feed and grain increased from 1926 to 1929, declined from 1929 to 1932, and increased again until 1936 (Table 4). The cash income from the sale of grain in any year is influenced by the price received, the production in the current year, and the carryover from the previous year. The acreage of grain crops increased from 1926 to 1932, went down sharply from 1932 to 1934, but increased again until 1937; the highest crop yields were in 1928, 1932, and 1937, and the lowest yields in 1934 and 1936. A more complete analysis of land use will be found in a following section.

Cash Business Expenditures and Net Income

The weighted average cash farm business expenditures for Illinois accounting farms increased about 10 percent from 1926 to 1928, dropped 53 percent from 1928 to 1933, but by 1937 increased to more than the 1928 level (Table 5). The farm business expenditures were influenced by the amount of cash received during the year and by the need for replacing worn-out equipment.

Machinery and improvements. Year-to-year fluctuations in expenditures were violent for machinery and improvements (Table 5 and Fig. 14). In 1929, $646 was spent per farm for machinery, gas, oil, and repairs; in 1932 only $254 was spent for these same items. From 1932 to 1937 expenditures increased rapidly, reaching a peak of $956 a farm in 1937.

During the depression years farmers bought very little new machinery, the more expensive machinery being exchanged or rented; in addition horses were used as much as possible in order to economize on gas and oil. From 1930 to 1934 the proportion of central Illinois accounting farms operated with horses alone remained constant at 26 percent (see page 234) but in 1935 it declined to 20 percent, in 1936 to 14 percent, and in 1937 to 10 percent. From 1930 to 1937 there was a change from standard tractors to general-purpose tractors, and from 1933 to 1937 there was a rapid increase in the use of mechanical corn

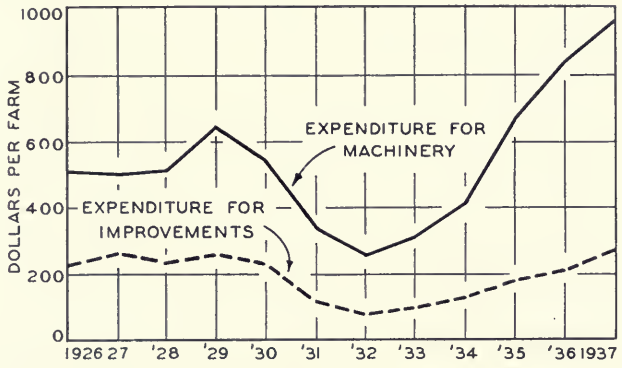

FIG. 14.—CASH EXPENDITURES FOR MACHINERY AND IMPROVEMENTS PER ILLINOIS ACCOUNTING FARM, 1926-1937

pickers, combines, and tractor equipment for the cultivation of row crops.

Expenditures for improvements declined from 1927 to 1932 and increased from 1932 to 1937 (Fig. 14 and Table 5). They were large enough in 1936 and 1937 to check the decline in inventory value which started in 1930 but were not large enough to cause an appreciable increase, as was true for machinery. Expenditures for improvements include cash paid for new buildings and fences, repairs, insurance, and for limestone and rock phosphate.

If the change in expenditures on accounting farms from 1932 to 1937 was typical of all farms in the state, Illinois farmers spent 28 million dollars more for building materials and limestone and 95 million dollars more for machinery in 1937 than in 1932.[1]

[1]These figures were obtained by reducing the average expenses for the accounting farms to an acre basis and then multiplying the increase per acre by the total Illinois farm acreage. The expenses per acre for improvements and machinery were $.33 and $1.16 respectively in 1932 and $1.21 and $4.21 respectively in 1937. This increase in expenses per acre was fairly typical of Illinois farms.

Labor and taxes. Cash expenditures for labor reached a peak of $376 a farm in 1928, declined to a low of $164 in 1933, and increased each year until in 1937 the average was $306 (Fig. 15 and Table 5). These variations represent variations in the rate of pay for hired men, as there was no appreciable change in the amount of labor

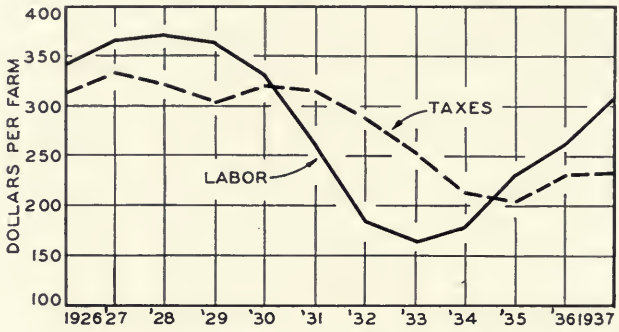

FIG. 15.—CASH EXPENDITURES FOR LABOR AND TAXES PER ILLINOIS ACCOUNTING FARM, 1926-1937

used per farm during this period. However, the months of man labor per 100 tillable acres declined from an average of 12.6 for 1926-1928 to 11.5 for 1935-1937, showing that the same amount of labor was working a larger acreage.

Year	*Months of man labor per farm*	*Months of man labor per 100 tillable acres*	Year	*Months of man labor per farm*	*Months of man labor per 100 tillable acres*
1926.....	20.8	12.5	1932.....	21.2	11.5
1927.....	21.5	12.7	1933.....	21.5	11.7
1928.....	21.8	12.5	1934.....	20.3	10.9
1929.....	21.6	12.2	1935.....	21.3	11.8
1930.....	20.4	11.3	1936.....	21.2	11.3
1931.....	21.0	11.3	1937.....	21.2	11.4

Expenditures for taxes were highest in 1927, with an average of $337 a farm and lowest, $206 a farm, in 1935. Taxes averaged $1.66 an acre in 1927, $.95 in 1935, and $1.03 in 1937.

Feed and livestock purchased. Expenditures for feed and for livestock are major items of expense on Illinois accounting farms (Table 5). Expenditures for feed were largest in 1928 and smallest in 1932, and expenditures for livestock were largest in 1928 and smallest in 1933. Variations are due largely to variations in prices.

Cash balance. The cash balance—the difference between cash farm receipts and cash farm business expenditures—represents the

cash available for farm family living, interest and debt payments, and savings. The average cash balance for Illinois accounting farms was highest in 1929, when it was $2,445, but it declined 60 percent by 1932 (Fig. 16 and Table 6). On many farms the cash balance in 1932 was not sufficient to pay the interest charges which were due; the level of living of farm families was drastically reduced, and many farms were taken over by mortgage holders.

The cash balance minus the value of unpaid labor (operator's labor plus unpaid family labor) gives a measure of farm income which is very useful for many purposes and which may be used in lieu of "farm income" when it is desirable to exclude inventory changes. This difference divided by the number of acres gives the "net income per acre," calculated on a cash basis, as contrasted with the usual "net

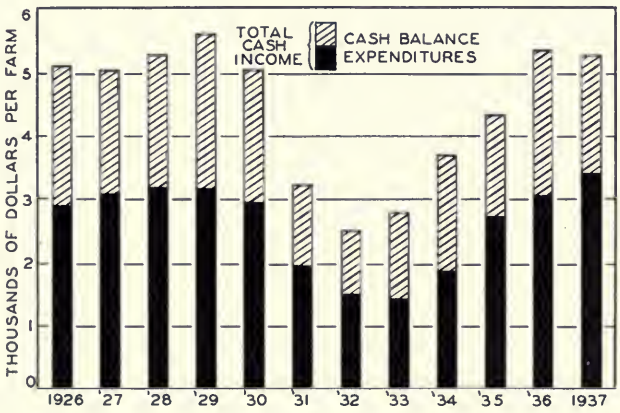

FIG. 16.—CASH FARM INCOME PER ILLINOIS ACCOUNTING FARM, 1926-1937

receipts per acre," calculated on an inventory basis. The measure calculated on a cash basis gives a better picture of variations in farm income for a group of farms over a period of years than does the one which includes inventory changes. There were large inventory losses on accounting farms in 1930, 1931, and 1932 which resulted in negative net receipts an acre in both 1931 and 1932; on the cash basis the smallest annual net income an acre was $1.43 in 1932.

Earned value of land and improvements. The net cash income per acre (changes in inventory disregarded) was used to calculate the earned value per acre of land and improvements when the net income was capitalized at 5 percent.[1] The earned value fluctuated widely with changes in the price of farm products (Fig. 17 and Table 7). It

[1]Five percent was deducted for the use of operating capital.

TABLE 6.—NET INCOME PER ILLINOIS ACCOUNTING FARM, WITH AND WITHOUT INVENTORY CHANGES, 1926-1937

Item	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Cash balance	$2 222	$2 037	$2 111	$2 445	$2 140	$1 285	$ 968	$1 312	$1 827	$1 737	$2 339	$1 885
Unpaid labor	833	893	902	892	861	731	654	672	669	668	740	733
Cash balance less unpaid labor	1 389	1 144	1 209	1 553	1 279	554	314	640	1 158	1 069	1 599	1 152
Inventory increases	63	169	730	449	−701	−1 097	−799	454	530	779	802	727
Net receipts including inventory change	1 452	1 313	1 939	2 002	578	−543	−485	1 094	1 688	1 848	2 401	1 879
Net income per acre, cash basis	6.98	5.64	5.87	7.50	5.95	2.53	1.43	2.94	5.19	4.95	7.04	5.07
Net receipts per acre, inventory basis	7.30	6.47	9.41	9.67	2.69	−2.48	−2.21	5.02	7.57	8.56	10.58	8.28
Acres per farm	199	203	206	207	215	219	219	218	223	216	227	227

TABLE 7.—INVENTORY VALUE AND EARNED VALUE OF LAND AND IMPROVEMENTS PER ACRE, ILLINOIS ACCOUNTING FARMS, 1926-1937

Item	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Inventory value of land per acre	$130	$133	$129	$122	$115	$105	$ 94	$ 91	$83	$82	$ 81	$79
Inventory value of improvements per acre	19	19	19	20	19	18	17	17	16	16	16	15
Total	$149	$152	$148	$142	$134	$123	$111	$108	$99	$98	$ 97	$94
Earned value of land and improvements per acre[a]	$114	$ 84	$ 93	$123	$ 92	$ 27	$ 7	$ 41	$88	$81	$123	$80

[a]Derived by capitalizing the net cash income at 5 percent after allowing a similar return on operating capital.

averaged $123 an acre in both 1929 and 1936 but only $7 an acre at the low point in 1932. Only in 1936 was the earned value equal to the average inventory value as reported by farm-account keepers.

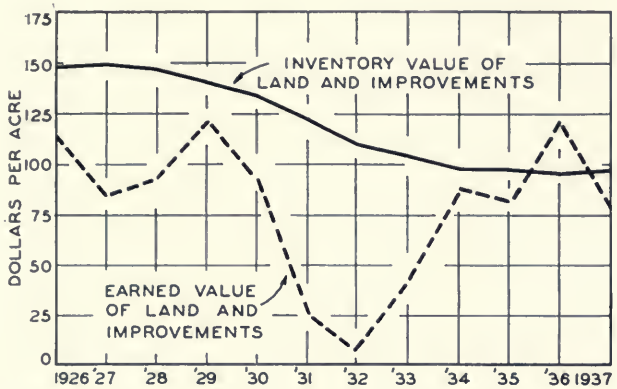

FIG. 17.—INVENTORY VALUE AND EARNED VALUE OF LAND AND IMPROVEMENTS PER ACRE FOR ILLINOIS ACCOUNTING FARMS, 1926-1937

The inventory value of land and improvements declined each year from 1927 until 1934, but there was no appreciable change from 1934 to 1937.

INVESTMENTS, INCOME, AND EXPENDITURES BY FARMING-TYPE AREAS

In the following section comparisons between the farming-type areas are made in investments, income, expenditures, and earnings, all based upon averages for the twelve-year period 1926-1937. Data are available for all major farming-type areas except Area 9 (Fig. 1).

TABLE 8.—INVESTMENTS PER ILLINOIS ACCOUNTING FARM, BY FARMING-TYPE AREAS, 1926-1937

Item	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Land	$20 725	$20 296	$26 279	$33 913	$23 533	$10 776	$ 8 725	$11 767
Improvements	5 875	5 398	4 278	4 225	3 593	2 493	2 218	2 297
Horses	441	442	478	571	473	400	359	396
Cattle	2 384	1 865	1 323	964	1 051	829	707	597
Hogs	403	843	1 039	480	656	220	277	350
Sheep	75	107	99	76	85	43	85	54
Poultry	141	141	112	122	110	181	155	147
Machinery	1 813	1 635	1 563	1 693	1 442	1 354	932	933
Feed and grain	1 911	1 895	2 102	2 446	1 723	1 366	1 046	1 302
Total investment	$33 768	$32 622	$37 273	$44 490	$32 666	$17 662	$14 504	$17 843
Investment in livestock	3 444	3 398	3 051	2 213	2 375	1 673	1 583	1 544

Variations in Investments

Total investments. Investments per farm differ because number of acres per farm and inventory value per acre differ. Differences in the inventory value of land are responsible for the major difference in the total investment per acre. The following data indicate the variation from area to area in average size of farm, in investment per acre in land, and in total investment per acre.

Farming-type area	*Acres per farm*	*Investment per acre in land*	*Total investment per acre*	*Percent invested in land*
1	188	$110	$180	61
2	196	104	166	63
3	219	120	170	71
4	241	141	184	77
5	234	100	140	72
6	185	58	95	61
7	195	45	74	61
8	199	59	90	66

For the twelve-year period the largest average investment per farm, including land, improvements, machinery, livestock, and feed and grain, was $44,490 for Area 4, and the smallest average investment was $14,504 for Area 7 (Table 8 and Fig. 18). The large investment in Area 4 was the product of a large acreage and a high investment per acre. Land was inventoried higher in Area 4 than in

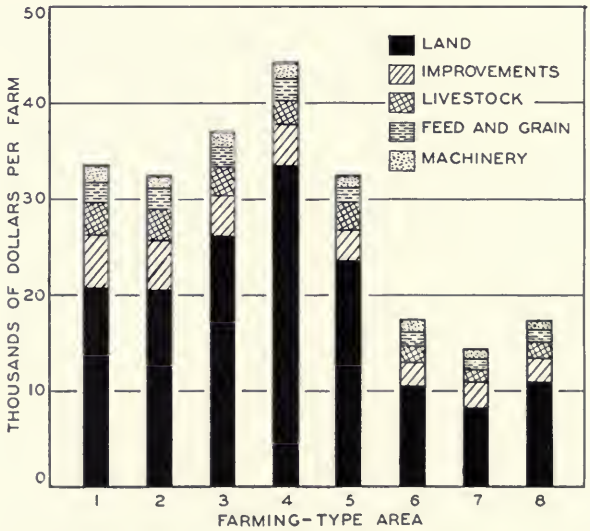

FIG. 18.—AVERAGE INVESTMENT PER ILLINOIS ACCOUNTING FARM IN VARIOUS FARMING-TYPE AREAS, 1926-1937

any other area, but the investment per acre in items other than land was higher for Areas 1, 2, and 3 than for Area 4 because of larger investments in livestock and improvements.

The investment per acre in land and the total investment per acre were smallest in Area 7 altho the smallest farms were in the dairy areas (Nos. 1 and 6). The total investment per acre in Areas 1 and 4 averaged twice as much as in Areas 6, 7, and 8, showing the influence of higher quality of land in the northern areas on capital investment per farm.

Improvements. Improvements included all farm buildings (except the residence), fences, limestone, rock phosphate, and other fixed improvements of a permanent or semipermanent character. Their value ranged from $5,875 a farm in Area 1 to $2,218 in Area 7 (Table 8). The second largest investment in improvements was in Area 2 in northern Illinois, where more expensive buildings are required for the dairy and livestock farms. In Area 1 the investment per acre for improvements was more than twice the average of Areas 5, 6, 7, and 8. The investment per farm in improvements was about the same for the cash grain area (No. 4) as for the livestock and grain area (No. 3), but the investment per acre was 11 percent greater for the livestock area than for the grain area. The amount of money invested in improvements was clearly influenced by size of farm, productivity of land, and amount of feed, livestock, and machinery to be stored and housed.

Livestock. The total livestock investment per farm averaged largest in Area 1 and smallest in Area 8, ranging from $3,444 to $1,544. The investment per acre for the eight farming-type areas was as follows:

Area 1	$18.32	Area 5	$10.15
Area 2	17.34	Area 6	9.04
Area 3	13.93	Area 7	8.11
Area 4	9.17	Area 8	7.77

The investment in cattle, including both beef and dairy cattle, was largest in Area 1 and smallest in Area 8; the investment in hogs was largest in Area 3 and smallest in Area 6; and the investment in poultry was larger in Areas 6 and 7 than in any other part of the state (Table 8).

Machinery. The investment in machinery was highest in Area 1, being almost twice as large as in Areas 7 and 8 (Table 8). It was slightly larger per farm in Area 4 than in Area 3 altho the investment per acre was smaller.

Feed and grain. The investment per farm in feed and grain was largest in Area 4 and smallest in Area 7. Normally more corn and oats are on hand at inventory time in Areas 3 and 4 than in other parts

of the state since these areas consist of large farms having a high percentage of land in grain crops with large average yields.

Variations in Cash Farm Income

Characteristics of the period. In contrasting the sources of income in the different farming-type areas during the twelve years of this study, some of the characteristics of the period should be kept in mind. Obviously the percentage of income from any source changes from year to year because of variations in the prices and quantities of the commodities sold. Some variations are cyclical in character; whereas other changes proceed as a trend in one direction over a long period. The increase in soybean production, particularly in the east-central part of the state, is an example of an upward trend which was not interrupted thru 1937. Dairy production also expanded during the period studied in areas adjacent to new hard roads, particularly in the St. Louis area.

The period 1926-1937 was long enough to average out many minor fluctuations. It was a period with years of high prices and years of

TABLE 9.—CASH INCOME PER ILLINOIS ACCOUNTING FARM, BY SOURCES AND BY FARMING-TYPE AREAS, 1926-1937

Source of income	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Horses	$ 41	$ 42	$ 68	$ 66	$ 64	$ 37	$ 51	$ 43
Cattle	988	1 469	1 342	733	933	346	415	385
Hogs	729	1 711	2 211	1 004	1 682	497	709	916
Sheep	110	118	138	75	86	44	70	47
Poultry and eggs	303	293	232	267	222	406	386	368
Dairy sales	2 197	844	311	407	365	750	358	300
Feed and grain	695	503	1 078	2 254	1 300	785	496	923
Machinery	106	111	130	146	143	93	77	63
Labor	51	60	62	66	68	71	78	66
Miscellaneous	11	11	11	11	15	16	18	18
Total	$5 231	$5 162	$5 583	$5 029	$4 878	$3 045	$2 658	$3 129

low prices as well as years of high crop yields and years of low crop yields, and the balance between the high and low years seems to have been fairly even.

Total income per farm. The average gross cash income per farm was $5,583 in Area 3 but only $2,658 in Area 7 for the twelve years. Areas 1, 2, 3, and 4 each had average farm incomes exceeding $5,000 a year (Table 9). The income per farm in Area 3 exceeded that in Area 4 even tho farms in the latter area averaged 22 acres larger and land was valued $21 an acre higher. The larger income was due primarily to the greater amount of livestock sold and reflected in part larger purchases of feeder stock. In general, gross cash incomes were larger in livestock areas than in grain areas having soils of comparable productivity.

Hogs, grain, and cattle were the major sources of income for the

accounting farms; dairy sales were important in Areas 1, 2, and 6; and poultry and eggs contributed an appreciable percentage of the income in Areas 6, 7, and 8. These differences in source of income reflect the wide variation in physical, biological, and economic conditions found within Illinois.

Livestock income. Illinois farmers have made striking adjustments in livestock production to correspond to variations in kinds of feeds available and in market demands. The cash income per farm from cattle was greatest in Area 2, from hogs and sheep in Area 3, from poultry and eggs in Area 6, and from dairy sales in Area 1. Income from cattle, hogs, and sheep was smallest in Area 6; income from poultry and eggs was smallest in Area 5; and that from dairy sales smallest in Area 8. The income from dairy sales was over seven times as great in Area 1 as in Area 8 (Table 9).[1]

Income from feed and grain. The average income from sales of feed and grain ranged from $2,254 a farm in Area 4 to $496 in Area 7 (Table 9). More feed and grain was sold than was purchased in all areas except Area 2. The twelve-year average excess of sales over purchases per farm was as follows:

Area 1	$187	Area 5	$595
Area 2	−82	Area 6	393
Area 3	342	Area 7	73
Area 4	1,928	Area 8	557

Income from other sources. Income from machinery (including all machinery traded as well as custom work[2]) was the most important minor source of income (Table 9). In 1937 this source of income was over three times as large as in 1932 because more old machinery was traded and more custom work with combines, corn pickers, and other tractor-powered machinery was done. Income from machinery was largest in Areas 4 and 5.

Income from labor off the farm and miscellaneous income were practically the same for all areas. Miscellaneous income included only a few minor items, such as sale of gravel, lumber, and posts.

Variations in Expenditures

Cash farm business expenditures ranged from $3,353 a farm in Area 3 to $1,661 in Area 7 (Table 10). In Area 4 these expenditures were much less than in other areas of similar quality of land because

[1] In 1934 and 1935 payments under the Agricultural Adjustment Act received for participation in the hog program were credited to hog sales, and those received for participation in the wheat and corn programs were credited to feed and grain. In 1936 and 1937 the benefit payments were credited entirely to grain.

[2] The gross income from custom work was divided in each account between machinery and labor in proportion to the contribution of the two factors.

TABLE 10.—CASH BUSINESS EXPENDITURES PER ILLINOIS ACCOUNTING FARM, BY FARMING-TYPE AREAS, 1926-1937

Item	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Horses	$ 52	$ 37	$ 55	$ 52	$ 58	$ 44	$ 40	$ 47
Cattle	495	629	565	302	400	126	138	130
Hogs	71	99	180	76	154	44	70	100
Sheep	70	50	81	31	28	13	13	8
Poultry	35	29	23	29	18	25	27	29
Feed and grain	508	585	736	326	705	392	423	366
Machinery	650	563	605	659	580	399	338	360
Improvements	251	224	204	208	184	187	139	151
Labor	374	248	337	342	356	171	147	217
Livestock expense	60	57	55	41	47	26	24	25
Crop expense	197	169	180	213	190	160	133	164
Taxes	295	264	305	385	308	162	148	208
Miscellaneous	49	30	27	30	29	26	21	21
Total expenditures	$3 107	$2 984	$3 353	$2 694	$3 057	$1 775	$1 661	$1 826
Total livestock purchases	723	844	904	490	658	252	288	314

of smaller expenditures for livestock and feed. In Areas 1, 2, and 5 expenditures were practically equal, and in Areas 6, 7, and 8 they were also about equal.

Livestock purchases. Total livestock purchases were the largest single item of expenditure in Areas 1, 2, and 3, but machinery was the largest item in Areas 4 and 6, and feed and grain in Areas 5, 7, and 8. The relation of livestock purchases to total expenditures per farm in each farming-type area was as follows:

Farming-type area	*Livestock expenditures, percent*	*Farming-type area*	*Livestock expenditures, percent*
1	23.3	5	21.5
2	28.3	6	14.2
3	27.0	7	17.3
4	18.2	8	17.2

Feed and grain. Feed and grain purchases per farm were more than twice as large in Areas 3 and 5 as in Area 4, the latter having the smallest amount of any area. Feed purchased made up 22 percent of the total expenditures in Area 3 and 23 percent in Area 5, because these two areas have the most livestock in proportion to the feed produced.

Machinery. Expenditures for machinery, gas, oil, and repairs ranged from $563 to $659 a farm in the five areas farthest north in the state and from $338 to $399 in Areas 6, 7, and 8. In Area 4 almost 25 percent of all expenditures was for machinery, oil, gas, and repairs.

Improvements. Average annual expenditures for improvements were highest in northern Illinois, particularly in Areas 1 and 2, and lowest in Areas 7 and 8.

Labor. Expenditures per farm for labor averaged about the same in Areas 1, 3, 4, and 5 (Table 10). The expenditure per acre however, averaged $1.99 in Area 1, as contrasted with $1.54 in Area 3, $1.52 in Area 5, and $1.42 in Area 4. Labor costs were much lower in Areas 6, 7, and 8 than in the other areas, being only 75 cents an acre in Area 7.

Cash expenditures for labor represent only a portion of the total available labor supply since the value of family labor is not included as a cash expenditure. The total labor cost per farm for each area is the total of the cash cost (Table 10) and the value of the operator's labor and family labor (Table 11).[1] The estimated value of the labor of the operator and his family ranged from $858 a farm in Area 1 to $642 in Area 8. The rate per month for both the operator's labor and family labor was higher in the northern part of the state than in the southern part.

The total number of months of hired and family labor per farm and per 100 tillable acres for the various areas was as follows:

Area	*Months of labor*	*Months of labor per 100 tillable acres*	*Cash labor expense per acre*
1	23.8	15.3	$1.99
2	21.0	13.2	1.27
3	20.9	11.6	1.54
4	21.6	9.8	1.42
5	22.0	11.4	1.52
6	21.6	14.0	.92
7	19.1	11.8	.75
8	19.5	11.5	1.09

There was less variation in the amount of labor used per farm in the various areas than in the cost of hired labor, and less variation in the amount of labor per farm than in labor per 100 tillable acres. The influence of the amount of livestock on the labor utilization is apparent, since Areas 1, 2, 3, and 6 had the most labor per 100 tillable acres and also the most livestock per farm.

Crop expense. Crop expense (including seeds, twine, threshing, and combining) was largest in Area 4 and smallest in Area 7. It varied less from area to area than most other major expense items (Table 10).

Taxes. Expenditures per farm for real estate and personal taxes

[1]The value of the operator's labor and family labor was based on an estimate of the total cost for the best grade of hired labor and was intended to represent only the value of the physical work done, no charge being included for management. Rates were changed from year to year as the cost of hired labor changed. The charge for hired labor included the cash cost plus the value of food and shelter furnished.

TABLE 11.—CASH BALANCE, INVENTORY CHANGES, AND FARM EARNINGS PER ILLINOIS ACCOUNTING FARM, BY FARMING-TYPE AREAS, 1926-1937

Item	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Acres per farm	188	196	219	241	234	185	195	199
Cash balance	$2 124	$2 178	$2 230	$2 335	$1 821	$1 270	$ 997	$1 303
Inventory changes								
Livestock	$ 48	$−6	$−6	$ 17	$ 39	$ 43	$ 16	$ 13
Feed and grain	52	74	133	140	122	56	77	44
Machinery	48	65	78	81	60	53	43	49
Improvements	−10	−25	−22	−16	−18	20	2	6
Total	$138	$108	$183	$222	$203	$172	$138	$112
Cash balance plus inventory increases	$2 262	$2 286	$2 413	$2 557	$2 024	$1 442	$1 135	$1 415
Operator's labor	602	609	609	604	579	500	474	470
Family labor	256	237	172	189	194	267	204	172
Net farm receipts	$1 404	$1 440	$1 632	$1 764	$1 251	$ 675	$ 457	$ 773
Rate earned on investment, percent	4.2	4.4	4.4	4.0	3.8	3.8	3.2	4.3
Labor and management wage	$318	$418	$378	$144	$197	$292	$206	$351
Earned value of land and buildings[a]	98	101	103	102	66	30	14	47
Net cash income per acre[b]	6.73	6.80	6.62	6.40	4.48	2.72	1.64	3.32

[a]Derived by capitalizing net cash income at 5 percent after allowing a similar return on operating capital. [b]Cash balance less labor of operator and family divided by number of acres per farm.

ranged from $385 in Area 4 to $148 in Area 7. Average expenditure per acre for the twelve years was:

Area	*Taxes per acre*	*Rank on basis of land value*	*Area*	*Taxes per acre*	*Rank on basis of land value*
1	$1.57	3	5	$1.32	5
2	1.35	4	6	.88	7
3	1.39	2	7	.76	8
4	1.60	1	8	1.05	6

Except that Area 1 and Area 3 are interchanged, the areas are ranked in the same order for taxes as for value of land. The higher taxes in Area 1, in proportion to the inventory value of the land, are no doubt due to the influence of the Chicago metropolitan area.

Variations in Farm Earnings

For the twelve-year period the cash balance (the difference between the cash income and cash farm business expenditures) averaged $2,335 a farm in Area 4 and $997 in Area 7. The balance per farm was practically the same for Areas 1, 2, 3, and 4 (Table 11).

The average annual inventory increases exceeded the average annual inventory decreases in all areas, ranging from a net increase of $222 a farm in Area 4 to $108 a farm in Area 2. However, net decreases in livestock were found in Areas 2 and 3 and in improvements in Areas 1, 2, 3, 4, and 5. No decreases in feed and grain or in machinery occurred in any area.

Altho they do not actually do so, the data on inventory changes

given in Table 11 appear to conflict with those in Table 3. In Table 3 beginning-of-the-year inventories for all accounting farms show that the average value of improvements, livestock, machinery, and feed and grain was $537 less in 1937 than in 1926; while the data in Table 11 show that inventory increases for improvements, livestock, machinery, and feed and grain exceeded the inventory decreases for the same records for the same period. This seeming discrepancy arises from the different ways the data were calculated.

Table 3, which gives the average investment per accounting farm for each year, shows the effect of new cooperators' entering during a period of falling prices; these new cooperators inventoried items on a lower basis than did the cooperators who were in the project the previous year and who depreciated items on the basis of their age and not on the basis of price changes.[1] Thus altho there might be only a slight change in inventory value for *identical* farms, the average for *all* accounting farms in one year might be considerably below the average for all accounting farms in the previous year. Table 11 shows the changes in inventory that occurred on identical farms and eliminates the effect of new cooperators starting their records on a lower basis than that of the old cooperators.

Net farm receipts, rate earned on investment, and labor income. Net farm receipts, after allowing for inventory increases and deducting the value of the operator's labor and family labor, averaged largest in Area 4 and smallest in Area 7. The capital investment, however, was also largest in Area 4, so that the rate earned on the investment for the twelve-year period was not quite so large in Area 4 as in Areas 2 and 3, being 4.0 percent in Area 4 and 4.4 percent in Areas 2 and 3. There was little difference between the various areas except that the rate earned in Area 7 was lower than in other areas (Table 11). Had the value of farm products used in the household been included as income, even less variation would have been found.

These data indicate that, on the average, land values in the various areas have been maintained at such a level that the opportunity for making a return on capital invested in farms is practically the same in all sections of Illinois.

For the period 1926-1937 the labor and management wage, or labor income, was largest in Area 2 and smallest in Area 4, where the farms were largest.

The total receipts per farm—including inventory change and its division into cash farm business expenditures, unpaid labor, and net farm receipts by farming-type areas—are shown in Fig. 19.

[1]The inventory value of a tractor, once entered in the records, would be prorated over the years of use and would not be depreciated faster because prices of new tractors declined.

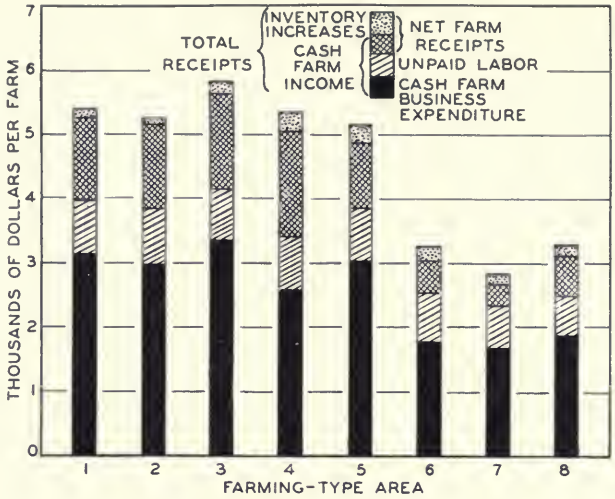

FIG. 19.—INCOME, BUSINESS EXPENDITURES, UNPAID LABOR, AND NET FARM RECEIPTS PER ILLINOIS ACCOUNTING FARM IN VARIOUS FARMING-TYPE AREAS, 1926-1937

Earned value of land and buildings. The earned value of land and buildings was calculated by deducting 5 percent for the use of capital invested in livestock, machinery, and feed and grain from net cash income per acre and capitalizing the remaining income at 5 percent. The earned value of land and buildings in Areas 1, 2, 3, and 4 averaged $101 an acre for the twelve-year period and was practically the same for all four areas. The earned value for the other four areas was much less, being only $14 in Area 7 (Table 11).

Year-to-year fluctuations in the earned value of land and buildings by farming-type areas are shown in Table 25, page 264.

LAND USE ON ACCOUNTING FARMS

Changes in land use by account keepers represent the reaction of the most alert farmers of the state to changing economic conditions. Most of the account keepers were leaders in their communities. They were among the first to adopt improved farming practices, and prior to the conservation programs their cropping systems contained a higher ratio of legumes to grain than the average farms in their communities.

From 1926 to 1929 prices of farm products were relatively high; from 1929 to 1933 prices declined sharply; but from 1934 to 1937 prices rose, and Agricultural Adjustment programs were available for

Illinois farmers. Changes in land use will be studied with these facts in mind. The important changes in land use for the period 1926-1937 are shown in Fig. 20.

Changes in Crop Acreage

The area in corn on Illinois accounting farms increased from an average of 58 acres a farm in 1926 and 1927 to 75 acres in 1932, declined to a low of 51 acres in 1934, but increased again to 66 acres in 1937 (Table 12). During this period the average size of farm increased from 199 to 227 acres. The percentage of tillable land in corn and in total grain crops by years was as follows:

Year	Percentage of tillable land in— Corn	Total grain crops	Year	Percentage of tillable land in— Corn	Total grain crops
1926	34.8	62.6	1932	39.5	70.3
1927	33.7	62.6	1933	36.2	66.8
1928	37.4	67.1	1934	26.8	57.9
1929	35.5	67.0	1935	28.0	60.9
1930	37.7	69.8	1936	34.1	64.5
1931	38.2	70.7	1937	34.6	68.9

The percentage of tillable land in corn increased from 1929 to 1932, but the price of corn in Illinois declined from 80 cents to 25 cents a bushel. Meanwhile the percentage of land in total grain crops increased from 67 to 70 percent, showing that in an effort to secure as much income as possible during a period unfavorable to agriculture, farmers were increasing their acreage of intensive crops.

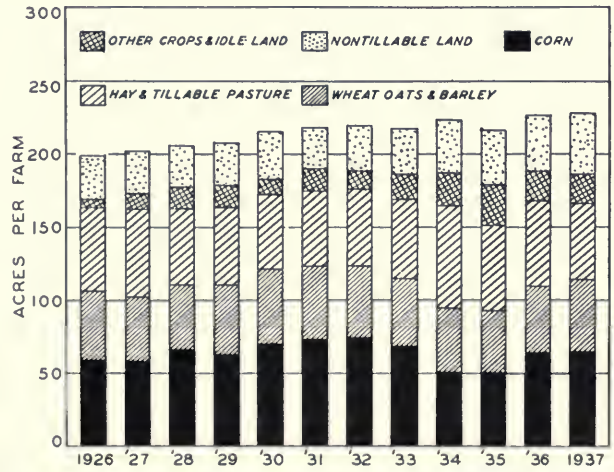

FIG. 20.—AVERAGE LAND USE PER ILLINOIS ACCOUNTING FARM, 1926-1937

From a high of 39.5 in 1932 the percentage of tillable land in corn dropped to 26.8 in 1934, mainly as a result of the corn-hog program. The percentage increased each year from 1934 to 1937 because the price of corn advanced sharply and because fewer farmers cooperated in the Agricultural Adjustment programs. In the drouth years of 1934 and 1936 the corn surplus was reduced to the point where an increased acreage seemed desirable.

From 1926 to 1931 the acreage of wheat harvested on accounting farms fluctuated but little, averaging 20 acres a farm—if the data for 1928, a year of excessive winter injury, are omitted. The acreage declined, however, to 16 acres a farm in 1932 and 1933, when the price of wheat was low, but increased to 24.4 acres a farm in 1937. Hence the Illinois acreage increased while the wheat program was operating.

An outstanding change in land use on the accounting farms from 1926 to 1937 was the increase in soybean plantings. The acreage grown for grain increased from .7 acre a farm in 1926 to 15.7 acres in 1935, declining somewhat in both 1936 and 1937. Most of the soybean acreage is in the southern part of east-central Illinois, in Areas 4 and 5, Area 5 averaging 23 acres a farm in 1934 and Area 4 averaging 35 acres in 1935. Year-to-year changes in soybean acreage are shown by farming-type areas in Table 26.

Tillable land in hay and pasture averaged 52.4 acres a farm for the period 1930-1933 (Table 12). In 1934 the acreage jumped to 70.5 acres as a result of the corn-hog program. In 1935 and 1936 it was above normal, but in 1937 it was the same as the 1930-1933 average. Hay and pasture was difficult to maintain during 1934 to 1937, as most new seedings were killed in the drouth years of 1934 and 1936; therefore for these four years there was an average of only 60.4 acres in hay and pasture on accounting farms.

A further effect of the adjustment programs was to cause an increase in "other crops," such as legumes seeded alone, oats clipped, and soybeans plowed under.

The increase in the acreage of nontillable land was the final outstanding change in land use during the period 1926-1937. From 1926 to 1933 the acreage of nontillable land deviated but little from 30 acres a farm, but it increased each year from 1934 to 1937, averaging 37 acres in 1937. This increase was undoubtedly the result of the adjustment programs; during these four years farms were measured more carefully than ever before (this fact necessitating some corrections in the accounting records), and farmers gave increased attention to erosion problems and improved land use, retiring some land from cultivation to secure better erosion control.

Participation in Government Programs

The percent of accounting farms receiving Government payments declined each year from 1934, when the payments started, to 1937

TABLE 12.—LAND USE ON ILLINOIS ACCOUNTING FARMS, 1926-1937
(Acres per farm)

Item	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Corn	58.6	57.9	65.9	63.4	69.6	72.4	74.6	68.2	51.3	51.4	65.5	65.8
Oats and barley	28.6	25.6	31.2	28.2	30.9	29.8	34.3	31.1	26.4	25.8	25.5	26.8
Wheat	17.2	20.7	14.6	20.3	21.4	21.5	15.6	16.7	19.0	18.4	20.1	24.4
Soybeans	.7	.6	2.4	3.4	4.0	8.3	6.8	7.6	11.2	15.7	11.9	12.8
Other grain	.4	2.7	4.3	4.3	3.0	2.1	1.7	2.2	2.8	.4	.9	1.1
Total grain	105.5	107.5	118.4	119.6	128.9	134.1	133.0	125.8	110.7	111.7	123.9	130.9
Total hay	28.1	28.4	23.5	23.2	22.2	21.5	22.0	22.6	29.6	27.4	26.6	23.2
Other crops	3.2	5.0	5.7	4.9	3.9	4.5	3.5	5.2	7.4	9.0	7.2	6.4
Total crops	136.8	140.9	147.6	147.7	155.0	160.1	158.5	153.6	147.7	148.1	157.7	160.5
Idle land	.2	1.2	.2	1.2	.5	.4	.2	2.1	2.5	3.7	1.5	.4
Total tillable pasture	31.6	29.5	28.6	29.5	29.2	29.2	30.4	32.6	40.9	31.7	32.9	29.2
Total tillable land	168.6	171.6	176.4	178.4	184.7	189.7	189.1	188.3	191.1	183.5	192.1	190.1
Nontillable land	30.3	30.8	29.5	28.7	30.5	29.1	30.2	30.0	31.4	33.1	34.6	37.2
Total acres	198.9	202.4	205.9	207.1	215.2	218.8	219.3	218.3	222.5	216.6	226.7	227.3

TABLE 13.—GOVERNMENT PAYMENTS PER ILLINOIS ACCOUNTING FARM, BY FARMING-TYPE AREAS, 1934-1937

Farming-type area	Percent of farms receiving payments				Payment per farm (all farms)				Payment per farm receiving payments			
	1934	1935	1936	1937	1934	1935	1936	1937	1934	1935	1936	1937
1	71	67	55	50	$192	$215	$ 73	$ 92	$271	$317	$131	$183
2	93	92	78	67	238	386	126	132	257	418	161	199
3	98	92	84	70	341	487	230	173	343	526	272	251
4	95	91	85	67	299	359	260	194	318	394	308	291
5	96	95	92	69	321	463	242	165	336	489	264	238
6	89	90	87	77	186	239	117	148	205	259	135	192
7 and 8[a]	83	85	71	75	157	205	96	143	191	281	136	190
Average	91	89	81	69	256	342	182	160	278	386	220	233

[a]Areas 7 and 8 were combined because of the small number of records available.

(Table 13) ; 91 percent received payments in 1934 but only 69 percent in 1937.[1]

The participation was not the same in all areas; the largest percentage of account keepers receiving payments was in Area 3 in 1934, in Area 5 in 1935 and 1936, and in Area 6 in 1937. The type of program available in 1934 was most favorable to those sections of the state having the best land and the most hogs; whereas the 1937 program favored those sections having the poorest land. Each year the percentage of account keepers receiving Government payments was lower in Area 1 than in any other farming-type area because the percentage of tillable land in corn was smaller in this area than in most other areas, because a large percentage of the corn grown was put in the silo, and because many of the farms fed more grain than they produced. For all areas except the three southern ones the percentage of account keepers receiving payments declined markedly each year after 1934. In Areas 6, 7, and 8 the percentage also declined but less rapidly than in the other areas. In Area 3 the percentage cooperating declined 28 percent from 1934 to 1937, while the decline in Areas 7 and 8 was only 8 percent.

The following data indicate that Illinois account keepers participated in adjustment programs when it appeared profitable for them to do so. In 1934 and 1935 about 90 percent of the account keepers cooperated in the program and received payments averaging $278 a farm in 1934 and $386 in 1935. Only 81 percent received payments in 1936, and in 1937 the percentage declined to 69—the payments averaging $220 in 1936 and $233 in 1937. The average payment in Area 3 was 26.8 percent less in 1937 than in 1934, as contrasted with a decline of 6.3 percent in Area 6 and .5 percent in Areas 7 and 8.

The weighted average payment per farm for all accounting farms was largest in 1935 and smallest in 1937 (Table 13), when there were fewer farms cooperating and smaller payments per farm on cooperating farms. The portion of the total cash farm income on all farms derived from benefit payments was 6.9 percent in 1934, 7.9 percent in 1935, 3.4 percent in 1936, and 3.0 percent in 1937. In 1935 the payments ranged from 5.0 percent of the total cash farm income in Area 1 to 7.9 percent in Area 3. In 1937 when the payments were smaller and the farm income from other sources increased, the range was only from 1.5 percent in Area 1 to 4.2 percent in Areas 7 and 8. For the period 1934-1937 benefit payments for all accounting farms equaled land and personal taxes.

[1]Except in 1934, payments were usually received for participation the previous year. They were entered in the accounts as a cash farm income on the date when the checks were received. Payments on hogs were entered in the hog account, and payments for corn, wheat, and agricultural conservation were entered as cash income from grain.

Crop Yields

Corn yields on accounting farms averaged 40.2 bushels an acre for the twelve years of this study (Fig. 21). Corn yields were at a record low level, 26 bushels, in 1934 and 1936 and at a record high level, 54.9 bushels, in 1937. Yields on accounting farms were higher than were those for the average of all farms in the respective counties.

The average oat yield on all accounting farms for the twelve years was 33.3 bushels an acre. The yearly average ranged from a low of 13.3 bushels an acre (on the basis of the planted acreage) in 1934 to a high of 49.1 bushels in 1937.

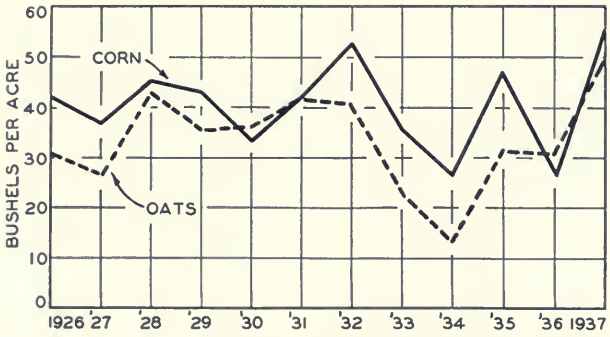

FIG. 21.—AVERAGE CORN AND OAT YIELDS PER ILLINOIS ACCOUNTING FARM, 1926-1937

Variations in the average level of crop yields account for many of the differences between farming-type areas in land use, livestock organization, and net income per acre. For the twelve-year period corn yields were 59 percent higher in Area 2 than in Area 7; and the average net income was $6.80 an acre in Area 2 but only $1.64 in Area 7. For the twelve-year period the average corn and oat yields on accounting farms by farming-type areas were:

Area	*Corn yields per acre*	*Oat yields per acre*
1	39.7	39.0
2	47.4	40.5
3	45.6	38.1
4	42.5	35.9
5	38.9	31.8
6	30.9	25.6
7	29.9	20.1
8	33.7	23.7

The average yields of corn, oats, and wheat are shown by years and farming-type areas in Table 27, page 270.

Land Use in the Different Areas

The average acreage of corn per farm for the twelve years ranged from 35.5 acres in Area 6 to 89.8 acres in Area 4 (Table 14). Only 12.8 acres of oats were grown per farm in Area 7, whereas 41.6 acres were grown in Area 4. Less than 10 acres of wheat per farm were grown in Areas 1, 2, and 3, but more than 30 acres in Areas 5, 6, and 8. Barley was important in Areas 1 and 2 only.

There was little soybean production before 1930; therefore averages for 1926-1937 do not represent conditions in 1937. Nor do area

TABLE 14.—LAND USE ON ILLINOIS ACCOUNTING FARMS, BY FARMING-TYPE AREAS, 1926-1937
(Acres per farm)

Item	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Corn	54.0	57.7	74.8	89.8	67.0	35.5	36.9	47.8
Oats	27.4	28.8	29.3	41.6	21.6	19.5	12.8	14.6
Wheat	7.5	3.3	9.7	18.7	30.9	36.0	16.5	33.0
Barley	11.2	8.0	....	....	....	....	....	....
Soybeans	1.2	1.1	5.8	14.4	11.2	1.9	2.5	2.5
Other grains	1.6	1.8	3.8	3.6	1.6	.9	.8	1.2
Total grains	102.9	100.7	123.4	168.1	132.3	93.8	69.5	99.1
Hay	28.1	27.4	24.7	18.4	21.8	25.4	36.2	23.2
Other crops	5.1	4.0	3.5	6.0	5.6	5.8	7.1	5.7
Total crops	136.1	132.1	151.6	192.5	159.7	125.0	112.8	128.0
Idle land	.5	.3	.5	.2	1.1	.8	4.0	3.7
Tillable pasture	19.5	27.2	27.8	28.0	33.1	28.1	45.4	39.1
Total tillable land	156.1	159.6	179.9	220.7	193.9	153.9	162.2	170.8
Nontillable land	31.9	36.4	39.1	20.5	40.2	30.6	33.1	27.8
Total acres	188.0	196.0	219.0	241.2	234.1	184.5	195.3	198.6
Percent tillable	83.0	81.4	82.1	91.5	82.8	83.4	83.1	86.0

averages bring out the importance of the crop in some counties. In both Areas 4 and 5 the principal acreage is concentrated in a few counties. The average acreage for soybeans was 14.4 acres in Area 4 and 11.2 acres in Area 5; but in Champaign county in Area 4 soybeans in 1937 averaged 54.9 acres a farm on accounting farms.

Total grain crops averaged 168 acres a farm in Area 4 but only 70 acres in Area 7. The acreage of hay, on the other hand, was least in Area 4 and greatest in Area 7. The acreage of hay was also large in Areas 1 and 2. The acreage of tillable pasture was least in Area 1, where there was an average of 20 acres to a farm, and greatest in Area 7, where there were 45 acres to a farm. Nontillable land averaged only 20 acres a farm in Area 4 but 40 acres in Areas 3 and 5. The percentage of land area tillable was about 83 percent in all areas except Areas 4 and 8, where it was 91.5 and 86.0 respectively.

These differences have a bearing on the farm income by areas, since the yield of one crop may be low when yields of other crops are high, thus favoring the area with a high percentage of land in the crop with

the high yield. Differences in crop prices also influence the relative income of the different areas (Fig. 3).

The percentage of land in various crops for the twelve years is shown by areas in Fig. 22 below and Table 28, page 271.

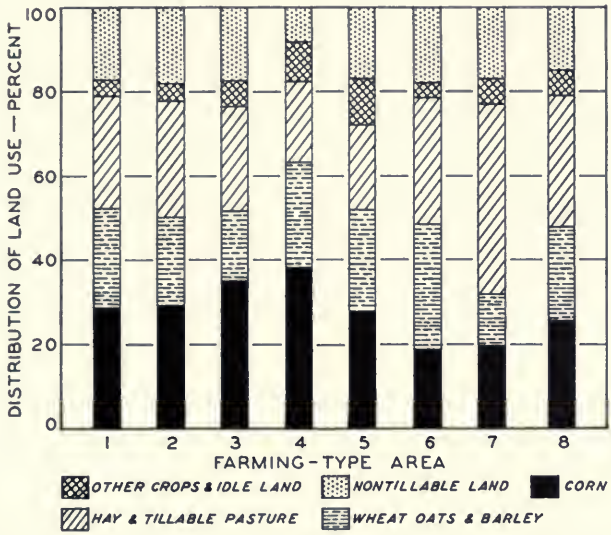

FIG. 22.—LAND USE ON ACCOUNTING FARMS IN EACH OF EIGHT ILLINOIS FARMING-TYPE AREAS, AVERAGES FOR 1926-1937

INFLUENCE OF SIZE OF FARM ON FARM ORGANIZATION AND INCOME[1]

In this study "acres per farm" is used as a measure of size of farm; and when considering groups of Illinois accounting farms, it is a good measure of size of business as well. For individual farms "acres per farm" does not always indicate the size of the business since the intensity of operation varies widely between farms in different farming-type areas and between farms within the same area. This intensity of operation may be secured by growing a high percentage of crops requiring a large labor input—such as corn, alfalfa, or canning crops—or by producing livestock which uses large quantities of feed or labor.

On the productive and intensively cropped farms in Areas 3, 4, and 5 (central Illinois) a close relationship was found between acres per

[1]This and the following section are based on records from both the statewide extension project in farm accounts and the Farm-Bureau Farm-Management Service project for the period 1926-1935.

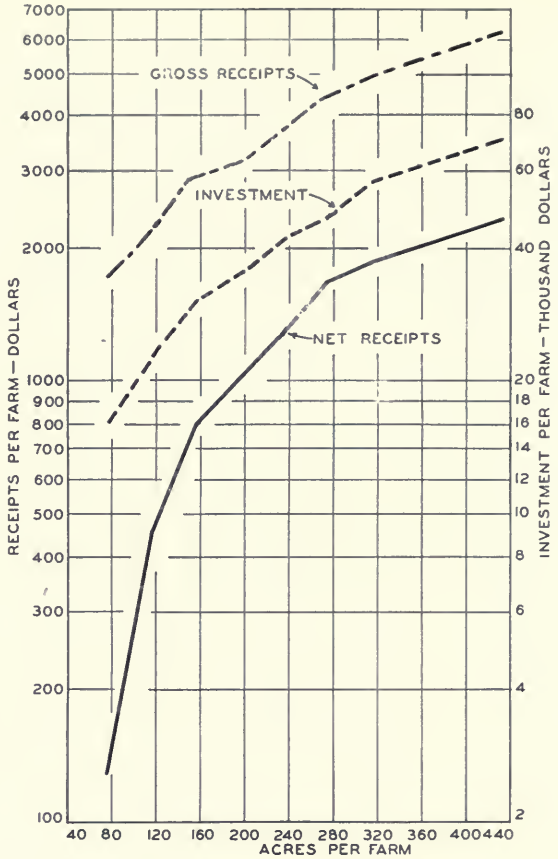

FIG. 23.—INVESTMENT, GROSS RECEIPTS, AND NET RECEIPTS PER FARM FOR VARIOUS SIZES OF ACCOUNTING FARMS IN AREAS 3, 4, AND 5, AVERAGES FOR 1926-1935

farm and size of business as measured by gross income or investment per farm (Fig. 23). For each additional acre of land per farm gross income increased $13.60 and investment $178. The rate of increase was practically the same for all size-groups, and a similar relationship was present in the other farming-type areas.

Variations in Eight Areas Due to Size of Farm

Number of farms in various size-groups. There were 17,911 records available for the size-of-farm study (Table 15). In Areas 1, 2, 3, 5, and 7 more farms were found in the 160-acre group (140 to

TABLE 15.—VARIATIONS DUE TO DIFFERENCE IN SIZE OF FARM, AVERAGE FOR ILLINOIS ACCOUNTING FARMS, 1926-1935

Area	0-99 acres per farm	100-139 acres per farm	140-179 acres per farm	180-219 acres per farm	220-259 acres per farm	260-299 acres per farm	300-339 acres per farm	340+ acres per farm
Number of records[a]								
1	99	159	161	110	50	42	35	42
2	122	326	492	307	270	153	130	166
3	207	386	830	492	611	320	318	484
4	190	529	1 270	1 024	1 295	595	698	997
5	106	244	387	380	367	264	176	299
6	133	327	400	403	224	97	57	54
7	82	99	153	127	84	41	28	57
8	41	92	68	62	58	50	16	25
Total	980	2 162	3 761	2 905	2 959	1 562	1 458	2 124
Net receipts per farm								
1	$517	$1 033	$1 275	$1 600	$1 882	...	...	...
2	414	590	1 063	1 130	1 484	$1 859	$1 725	$2 062
3	277	635	979	1 218	1 289	1 643	1 906	2 318
4	93	407	838	1 092	1 475	1 829	2 062	2 512
5	58	380	524	563	843	1 363	1 551	2 009
6	335	401	458	519	787	715	944	...
7	15	122	−132	411	449	843	...	...
8	105	340	...	840	...	814	...	...
Percent earned on investment								
1	2.93	4.18	4.22	4.13	3.80	....	....	....
2	2.68	2.93	3.91	3.41	3.86	4.23	3.39	3.35
3	1.62	2.72	3.17	3.43	3.12	3.59	3.29	3.32
4	.53	1.61	2.47	2.71	3.06	3.33	3.30	3.13
5	.46	2.28	2.39	2.20	2.63	3.83	3.64	3.88
6	2.98	2.97	2.97	2.93	3.69	3.22	3.40	....
7	.23	1.54	−.99	2.50	2.55	3.64	....	....
8	1.30	2.70	....	3.82	....	2.79	....	....
Net receipts per acre								
1	$6.92	$8.96	$8.18	$8.25	$6.23	....	....	....
2	5.35	5.11	6.77	5.81	6.34	$6.83	$5.48	$5.03
3	3.45	5.49	6.23	6.24	5.49	6.02	6.06	5.30
4	1.21	3.46	5.30	5.52	6.30	6.70	6.54	5.80
5	.64	3.22	3.33	2.90	3.58	4.96	4.94	4.63
6	4.22	3.52	2.98	2.69	3.39	2.63	2.47	....
7	.20	1.05	−.85	2.16	1.93	2.41	....	....
8	1.33	2.55	....	3.86	....	2.51	....	....
Labor and management wage (labor income)								
1	$134	$298	$262	$164	$− 94	...	...	...
2	142	82	203	− 27	62	$164	$−323	$−515
3	−79	− 33	− 66	− 58	−280	−144	−493	−678
4	−292	−353	−361	−419	−438	−419	−558	−1 004
5	−70	47	− 74	−218	−263	83	− 78	− 83
6	173	126	88	322	122	5	− 45	...
7	83	125	−398	− 12	− 32	86	...	...
8	102	111	...	139	...	−245	...	...

[a]A total of 17,911 records were used, distributed as follows: **Area 1**, 698; **Area 2**, 1,966; **Area 3**, 3,648; **Area 4**, 6,598; **Area 5**, 2,223; **Area 6**, 1,695; **Area 7**, 671; and **Area 8**, 412. In Area 1 all farms over 220 acres are included in the 220-259 group; in Area 6 all over 300 acres are in the 300-339 group; and in Areas 7 and 8 all over 260 acres are in the 260-299 group. In Area 8 the 100-139 group includes farms of 100-179 acres, and the 180-219 group includes farms of 180-259 acres.

(*Table is concluded on next page*)

TABLE 15.—VARIATIONS DUE TO DIFFERENCE IN SIZE OF FARM (*Concluded*)

Area	0-99 acres per farm	100-139 acres per farm	140-179 acres per farm	180-219 acres per farm	220-259 acres per farm	260-299 acres per farm	300-339 acres per farm	340+ acres per farm
				Months of labor per 100 tillable acres				
1	28.9	22.5	18.2	17.1	13.3	....	....	....
2	22.2	16.6	13.5	12.8	12.4	11.2	11.0	9.8
3	19.6	14.6	12.8	12.3	11.3	10.4	10.3	9.6
4	19.4	13.6	12.3	11.5	10.4	9.7	9.1	8.4
5	19.9	16.3	13.7	12.5	11.4	11.2	10.4	9.3
6	23.2	18.6	15.5	13.2	13.0	11.7	10.8	....
7	21.4	16.8	14.1	12.4	11.7	8.5	....	....
8	19.6	14.1	....	11.9	....	9.7	....	....
				Labor expense per crop acre				
1	$17.65	$14.23	$11.20	$10.72	$8.17	....	....	....
2	14.96	10.41	8.31	7.86	7.46	$6.79	$6.84	$5.87
3	14.11	9.47	8.23	7.54	6.99	6.23	6.49	5.86
4	13.07	8.83	7.58	6.83	6.28	5.85	5.52	5.08
5	13.80	10.30	8.60	7.80	6.95	6.63	6.09	5.44
6	13.15	9.67	7.95	6.83	6.65	6.04	5.84	....
7	13.23	9.99	8.70	7.56	7.46	4.90	....	....
8	12.24	8.03	....	7.45	....	5.34	....	....
				Machinery expense per crop acre				
1	$5.10	$4.84	$4.00	$4.27	$3.46	....	....	....
2	4.02	3.07	2.68	2.92	2.88	$2.82	$2.94	$2.81
3	3.55	2.97	2.70	2.48	2.51	2.39	2.62	2.71
4	3.49	2.70	2.68	2.43	2.40	2.37	2.16	2.13
5	2.80	2.75	2.52	2.16	2.23	2.27	2.47	2.27
6	3.08	2.56	2.23	1.92	2.17	1.68	1.99	....
7	2.53	2.01	1.90	1.92	2.11	1.77	....	....
8	2.75	1.84	....	2.32	....	1.93	....	....
				Feed fed per acre to productive livestock				
1	$19	$16	$15	$14	$12	...	...	...
2	17	14	13	13	13	$11	$11	$10
3	15	12	12	11	11	10	11	9
4	16	8	8	7	7	6	6	6
5	12	10	8	7	8	8	7	7
6	11	9	7	7	5	5	6	...
7	8	5	6	6	6	4	...	...
8	9	7	...	6	...	4	...	...

179 acres) than in any other. The largest percentage of small farms was found in Area 1 and the smallest percentage in Area 4 (Table 16).

A high percentage of large farms was found in the grain sections of the state and a high percentage of small farms in the dairy areas. Fifty-four percent of the farms in Area 4 and 50 percent in Area 5 were over 220 acres in size, these two areas having the largest percentage of large farms. Sixty percent of the farms in Area 1 and 51 percent in Area 6 were less than 180 acres in size.

Influence of size on livestock organization. As the size of farm increased, the amount of feed fed an acre declined in all areas, but more sharply in the grain areas than in the livestock areas (Table 15).

TABLE 16.—PERCENTAGE OF ILLINOIS ACCOUNTING FARMS IN VARIOUS SIZE-GROUPS, 1926-1935

Size-groups	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	All farms
acres									
0- 99	14.2	6.2	5.7	2.9	4.8	7.8	12.2	9.9	5.5
100-139	22.8	16.6	10.6	8.0	11.0	19.3	14.8	22.3	12.1
140-179	23.1	25.0	22.7	19.3	17.4	23.6	22.8	16.5	21.0
180-219	15.7	15.6	13.5	15.5	17.1	23.8	18.9	15.1	16.2
220-259	7.2	13.7	16.7	19.6	16.5	13.2	12.5	14.1	16.5
260-299	6.0	7.8	8.8	9.0	11.9	5.7	6.1	12.1	8.7
300-339	5.0	6.6	8.7	10.6	7.9	3.4	4.2	3.9	8.2
340-419	4.1	5.7	7.7	8.8	6.7	1.8	5.7	4.4	6.9
420+	1.9	2.8	5.6	6.3	6.7	1.4	2.8	1.7	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

In all areas the greatest decline in feed fed per acre came between the smallest size-group (less than 100 acres) and the next group, 100-139 acres.

Farm incomes. Farm incomes for the various size-groups are measured by net receipts per farm, net receipts per acre, rate earned on investment, and labor income (Table 15).

In all areas the net farm receipts increased as the size of farm increased. In Areas 2, 4, 5, and 7 the 280-acre farms had the largest net receipts per acre, and in Areas 3 and 8 the 200-acre farms. In Areas 1 and 6, the Chicago and the St. Louis dairy areas, however, the highest net receipts per acre were found on the smaller farms.

Using rate earned on investment as a measure of relative profitableness (Table 15) gave a slightly different result since the investment per acre was greater on small farms than on large ones. In Areas 2, 3, 4, and 7 the rate earned on investment increased as the size of farm increased up to 300 acres. In Area 5 the highest rate was for the group containing the largest farms; in Area 1 the highest rate was for the 160-acre farms and in Area 6 for the 240-acre farms. The relationship between size of farm and rate earned on investment was different for each farming-type area (Fig. 24).

Labor and management wage, or operator's labor income, indicates that small farms were more profitable than large ones, or, to be more exact, that small farms had smaller losses than large farms during this period of low average earnings (Table 15). The most profitable size of farm, as measured by labor income, varied widely for the different farming-type areas.

Rate earned on investment is better than labor income as a measure of the relative profitableness of farms under Illinois conditions, where average investments ranged from $15,000 a farm in Area 7 to over $44,000 a farm in Area 4. The relationship between size of farm and

rate earned on investment is not appreciably disturbed by changes in the level of earnings. On the other hand, in a period when the average rate earned on investment is low, labor income shows that small farms have the smallest losses; but in a period when the average rate earned is high, labor income indicates that large farms are most profitable.[1]

Labor and machinery expenses. For each size-group the months of labor per 100 tillable acres was largest in Area 1, second largest in Area 6, and smallest in Area 4 (Table 15). Approximately one more month of labor was used for each 100 tillable acres in Area 3 than in Area 4. There was a close relationship between labor input and amount

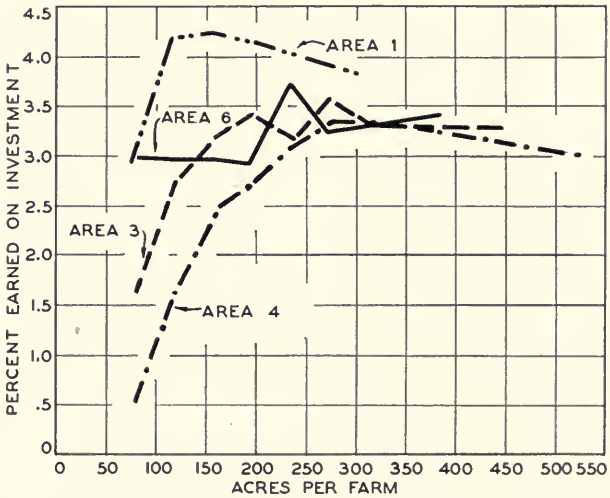

FIG. 24.—RATE EARNED ON INVESTMENT AS RELATED TO SIZE OF FARM, ACCOUNTING FARMS IN AREAS 1, 3, 4, AND 6, AVERAGES FOR 1926-1935

[1]The relationship between labor income and size of business is a product of the method of calculating labor income. It is calculated by deducting a charge equal to 5 percent of the total capital investment from the "farm income" and represents the return for the operator's physical labor and managerial ability. If it is assumed that the capital is entitled to a return of 5 percent, then in a period when the average rate earned on investment is 4 percent, there is a negative margin between the rate of return on the capital and the rate deducted for the use of capital; consequently the larger the capital investment, the smaller the labor income or the greater the loss. On the other hand when the average rate earned on investment is 6 percent, there is a positive margin above the 5 percent for the use of capital; consequently the larger the capital investment, the larger the labor income. In years of low incomes there is a negative correlation between size of business and labor income; in years of high incomes, a positive correlation.

of livestock on farms of the same size. The dairy farms, however, used more labor than did the beef cattle and hog farms.

The labor input per 100 tillable acres and the labor cost per crop acre declined in all areas as the size of farm increased. The labor cost per crop acre was twice as much on the 80-acre farms as on the 240-acre farms.

The machinery expense per crop acre was largest in the Chicago dairy area and least in the southern part of the state. In all areas it declined as the farms increased in size.

Variations in Central Illinois Farms Due to Size

In order to provide an adequate sample for a more complete analysis of the influence of size of farm on farm organization, operating expenses, and earnings, records for Areas 3, 4, and 5 were averaged together. An average of 1,247 records a year was available in the three areas for the ten-year period. The distribution of farms by size-groups was nearly enough alike in these areas to justify such a study. It must be remembered that these farms were on relatively fertile land in central Illinois. On a high percentage of farms tractors are used for cultivating row crops, most of the corn is harvested with two-row mechanical pickers, and the wheat and soybeans are harvested with combines.

Land value and percent tillable. On the small farms a higher percentage of the land was tillable than on the large ones, and the land (exclusive of improvements) had a higher value per acre. The value of land ranged from $138 an acre for farms less than 180 acres in size to $122 an acre for farms over 340 acres (Table 17); the percent of land area tillable was 89 and 82 respectively.

Crop yields, however, were practically the same for all size-groups. The average corn yields for the ten-year period were:

Acres per farm	*Bushels of corn per acre*	*Acres per farm*	*Bushels of corn per acre*
Less than 100	42.1	220–259	41.8
100–139	42.5	260–299	41.8
140–179	41.8	300–339	42.2
180–219	41.8	340 or more	41.4

Amount of livestock. Considerable variation by size-groups was found in the amount of livestock per acre as measured by the value of feed fed per acre to productive livestock (Fig. 25). The value of feed fed per acre declined as the size of farm increased, being twice as large on the 80-acre farms as on the 400-acre farms. For each size-group in each of the three areas, income from productive livestock was greater than income from grain, altho Area 4 is known as the cash

TABLE 17.—VARIATIONS DUE TO DIFFERENCE IN SIZE OF FARM, AVERAGES FOR ILLINOIS ACCOUNTING FARMS IN AREAS 3, 4, AND 5, 1926-1935[a]

Items	0-99 acres per farm	100-139 acres per farm	140-179 acres per farm	180-219 acres per farm	220-259 acres per farm	260-299 acres per farm	300-339 acres per farm	340+ acres per farm
Number of records	503	1 159	2 487	1 896	2 273	1 179	1 192	1 780
Acres per farm	78.6	117.2	157.7	195.2	235.7	273.4	314.8	434.1
Investment per farm	$16 227	$22 531	$30 100	$35 279	$42 371	$47 672	$56 164	$70 360
Investment per acre in land	138	137	138	131	131	129	132	122
Net receipts per farm	$129	$455	$791	$985	$1 265	$1 662	$1 891	$2 334
Rate earned on investment, percent	.79	2.02	2.63	2.79	2.99	3.50	3.37	3.32
Labor and management wage	$−76	$−64	$−107	$−172	$−247	$−115	$−311	$−578
Gross receipts per acre	22.14	18.46	17.87	16.32	16.00	15.97	15.71	14.24
Expenses per acre	20.50	14.58	12.85	11.27	10.63	9.89	9.70	8.87
Net receipts per acre	1.64	3.88	5.02	5.05	5.37	6.08	6.01	5.37
Land area tillable, percent	89.2	89.1	89.1	86.5	87.0	86.1	85.6	82.4
Feed per acre to productive livestock	$14.80	$9.78	$8.77	$8.24	$8.01	$7.45	$7.67	$7.13
Months of labor per 100 tillable acres	19.6	14.5	12.8	12.0	10.9	10.3	9.7	8.9
Labor expense per crop acre	$13.51	$9.37	$8.00	$7.26	$6.63	$6.15	$5.90	$5.36
Machinery expense per crop acre	3.32	2.78	2.64	2.37	2.38	2.35	2.35	2.31
Horses per farm	3.5	4.1	5.0	5.5	6.0	6.3	6.8	7.8
Horses per 100 tillable acres	5.0	3.9	3.6	3.3	2.9	2.7	2.5	2.2

[a]Weighted by number of farms reported in U. S. Census.

grain area in Illinois. The average percentages of the gross income derived from productive livestock in the three areas were:

Acres per farm	Percent of income from livestock	Acres per farm	Percent of income from livestock
Less than 100	94.6	220–259	74.6
100–139	83.5	260–299	73.0
140–179	76.4	300–339	72.2
180–219	76.2	340 or more	67.6

Even tho the percentage of income from productive livestock declined as the size of farm increased, over two-thirds of the income on the largest farms came from livestock production. Even in Area 4, the cash grain area, 57 percent of the income on the 420-acre accounting farms was from livestock. As was previously indicated, more livestock was produced on the accounting farms than on the average farms in the same areas.

Labor, horse, and machinery input. The months of labor per 100 tillable acres declined as the size of farm increased, ranging from 19.6 months for the 80-acre farms to 8.9 months for the 400-acre farms (Table 16 and Fig. 26). This 55 percent decline was due in part to less livestock per acre and in part to economies in the use of crop labor on the larger farms. Labor input and the value of feed fed to livestock declined more rapidly for the small size-groups than for the large ones.

The labor expense per crop acre declined 60 percent from the 80-acre to the 400-acre farms, averaging $13.51 for the smallest farms and $5.36 for the largest ones (Fig. 25).

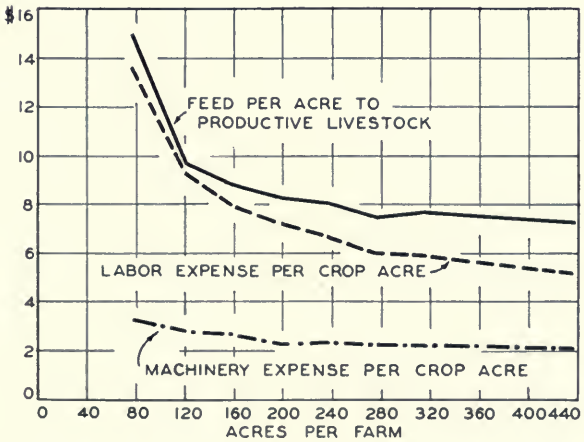

FIG. 25.—VALUE OF FEED FED PER ACRE, LABOR EXPENSE, AND MACHINERY EXPENSE PER CROP ACRE FOR VARIOUS SIZES OF ACCOUNTING FARMS IN AREAS 3, 4, AND 5, AVERAGES FOR 1926-1935

The average number of horses per farm ranged from 3.5 on the 80-acre farms to 7.8 on the 400-acre farms; the number per 100 tillable acres ranged from 5.0 to 2.2. As the size of farms increased, the rate of decline in the number of horses per 100 tillable acres was similar to the decline in labor input (Fig. 26).

As farms became larger, the machinery expense per crop acre also declined but less rapidly than expenses for labor because machinery expenses are influenced less by varying amounts of livestock than are

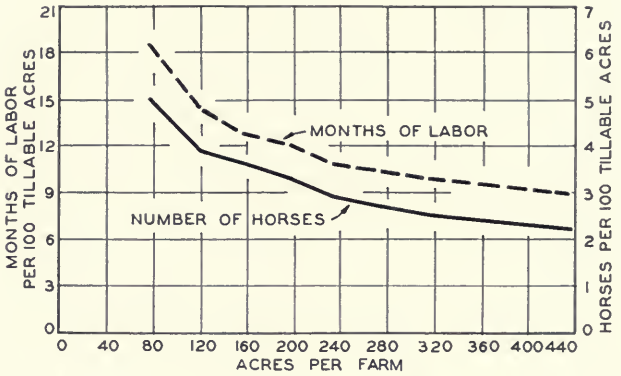

FIG. 26.—MONTHS OF LABOR AND NUMBER OF HORSES PER 100 TILLABLE ACRES FOR VARIOUS SIZES OF ACCOUNTING FARMS IN AREAS 3, 4, AND 5, AVERAGES FOR 1926-1935

expenses for labor. The machinery expense per crop acre was $3.32 for the 80-acre farms and $2.31 for the 400-acre farms, a decline of only 30 percent (Fig. 25); there was very little decline as the size of farm increased beyond 220 acres.

The use of general-purpose tractors increased rapidly during this period, especially near the end of the period, as indicated by the following data:

Type of power	*Proportion of farms using power indicated*				
	(1930)	(1931)	(1932)	(1933)	(1934)
Horse only	25.3	26.1	25.3	25.3	26.2
Horse and standard tractor	61.4	58.1	55.9	57.2	56.5
Horse and general-purpose tractor	13.3	15.8	18.8	17.5	17.3
	(1935)	(1936)	(1937)	(1938)	(1939)
Horse only	20.2	14.0	10.0	9.0	7.2
Horse and standard tractor	45.0	28.7	19.6	18.7	16.5
Horse and general-purpose tractor	34.8	57.3	70.4	72.3	76.3

The use of tractor power has reduced the amount of man labor needed to produce an acre of crops, as indicated by detailed cost records reported in Illinois Bulletin 467:

"Improved cultural practices and increased use of mechanical power during the twenty-five years [1913-1937] reduced the amount of man labor required in producing corn from 18.5 hours an acre in 1913-1915 to 9.6 hours an acre in 1935-1937. Man-hours an acre used in producing wheat declined from 19.4 in 1914-1916 to 4.9 in 1935-1937, and in producing soybeans they declined from 13.4 in 1922-1924 to 4.2 in 1935-1937. Man labor per acre in producing oats declined approximately 40 percent in the twenty-five years."[1]

Since Illinois farms are predominately family sized, the months of labor used per farm remained practically unchanged from 1926 to 1937. With no change in the supply of labor and with an increased use of power-operated machinery, the farmers had three alternatives: to increase the size of their farms; to increase the amount of livestock per acre; or to work fewer hours per year. The records indicate that the average size of farm was increased, that the amount of livestock per acre was not increased, but that the hours of productive labor per worker declined. According to detailed cost records from Champaign and Piatt counties, the hours worked per month of available labor declined from 242 in 1923-1925 to 203 in 1935-1937. Farm operators worked 330 fewer hours in 1935-1937 than in 1923-1925. In regions where tractor power and power-driven machinery are available, there will continue to be an economic incentive to increase the average size of commercial farms, particularly in those areas where cash grain crops are produced.

For the period 1926-1935 the larger farms in central Illinois had a decided advantage over the smaller in operating cost per acre, due largely to savings in the use of labor, horses, and machinery. Improvement expense and crop expense declined similarly as size of farm increased.

Influence of size of farm on profits. Both net receipts and investment per farm increased rapidly as the size of farm increased during the ten-year period. The rate earned on investment was highest for the 280-acre farms and was higher for all size-groups above 260 acres than for those smaller (Fig. 27). The net receipts per acre also were largest for the 280-acre group, being $6.08 per acre, but declined 71 cents an acre for the farms more than 340 acres in size.

The average labor income (labor and management wage) showed the smallest loss for the small farms and the largest loss for the large farms (Fig. 27). Labor income, however, should not be used as a measure of profitableness in an analysis of size of farm (see page 230).

Gross receipts, operating expenses, and investment per acre declined as the size of farm increased (Fig. 28). The decline in gross receipts was due to the higher percentage of nontillable land on the

[1] R. H. Wilcox and H. C. M. Case, Twenty-five years of Illinois crop costs, 1913-1937. Ill. Agr. Exp. Sta. Bul. 467, pp. 405-406. 1940.

larger farms and to the smaller amount of livestock per acre. Crop yields were practically the same for all size-groups.

The farm operator is interested not only in getting a good return for his capital but also in providing his family with a high level of living. If the owner-operators on the 80-acre and the 320-acre farms had half of their capital borrowed at 5 percent, the families on the smaller farms would have had $436 a year from the farm for family

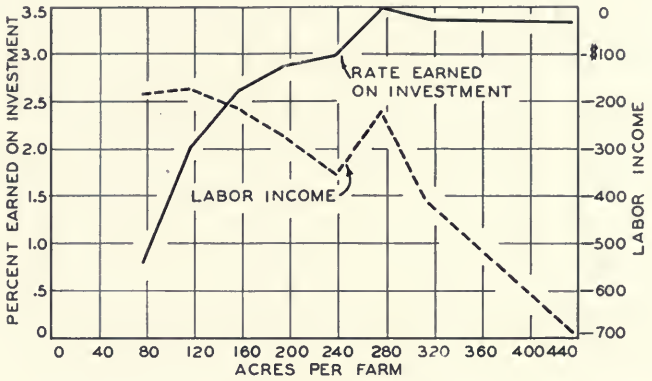

FIG. 27.—RATE EARNED ON INVESTMENT AND LABOR INCOME FROM ACCOUNTING FARMS OF DIFFERENT SIZES IN AREAS 3, 4, AND 5, AVERAGES FOR 1926-1935

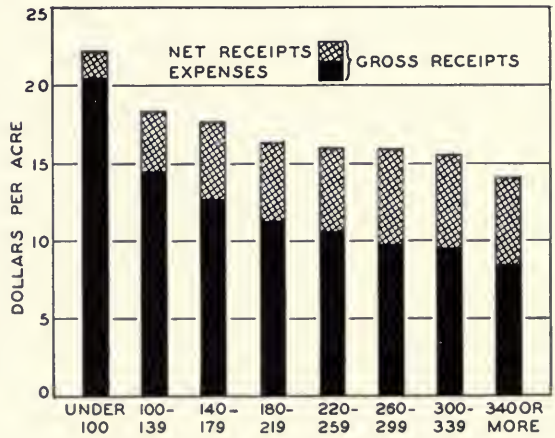

FIG. 28.—GROSS RECEIPTS, EXPENSES, AND NET RECEIPTS PER ACRE FOR VARIOUS SIZES OF ACCOUNTING FARMS IN AREAS 3, 4, AND 5, AVERAGES FOR 1926-1935

living expenses and savings; whereas, the families on the larger farms would have had $1,288 a year for the 10-year period, as indicated by the following:

	80-acre farms	*320-acre farms*
Investment	$16 227	$56 164
Receipts	1 740	4 945
Expenses	898	2 253
Receipts less expenses	842	2 692
5 percent on half of investment	406	1 404
Amount available for living, debt payments, and savings	$ 436	$ 1 288

These records for central Illinois indicate that farms 260 to 500 acres in size were on the average more efficient than smaller farms. Accounting farmers in these areas have shown their approval of the larger farms by continuing to buy the type of machinery adapted to larger farms and to increase the average acreage operated.

VARIATIONS IN FARMS DUE TO SOURCE OF INCOME

The question is often asked, "Which is the most profitable type of farm for a particular part of the state?" To answer this question it is necessary to know the relationships between different types of farms and size of farm, amount of labor per farm, investment in improvements and machinery, crop yields, and expenses per acre for labor, horses, and machinery.[1]

The 17,946 records for the period 1926-1935 were sorted according to the percentage of the gross income derived from various sources, and the following groups were formed:

Source of income	*Number of records*	*Percent of total*
Sixty percent or more of gross income from grain (intensive grain)	2 679	14.9
Forty to 59 percent of gross income from grain	2 652	14.8
Forty percent or more of gross income from—		
Hogs	5 010	27.9
Beef cattle	907	5.0
Dairy sales	2 384	13.3
Poultry	161	.9
Hogs and beef cattle	271	1.5
Mixed sources (no more than 40 percent from any one source)	3 617	20.2
Other classifications	265	1.5
Total	17 946	100.0

[1]The analysis in this section is based on averages for large numbers of farms and does not take into consideration variations within the source-of-income groups due to the efficiency of the individual operators. In deciding the type of farm organization he is going to use, each farmer must consider his own efficiency as well as the physical and economic factors which are discussed here.

Variations in Farms in Eight Areas

The data in Table 18 represent the reactions of superior farm operators to variations in the productive level of soils, the percentage of nontillable land on the farms, markets available, and disease and insect hazards.[1] The manner in which these operators used their land, labor, and capital under widely divergent conditions can serve as an example to other operators in the same areas.

In Areas 2, 3, and 5 there were more hog farms than any other type of farm. In Area 1 dairy farms predominated; in Area 4 the intensive grain farms (over 60 percent of the income from grain) predominated, and in Areas 6, 7, and 8 there were more mixed-income farms (less than 40 percent from any one source). For the entire state, 29.7 percent of the farms were grain farms; 27.9 percent, hog farms; 20.2 percent, mixed-income farms; and 13.3 percent, dairy farms. These four classifications thus accounted for 91 percent of all the farms in the study.

The following points were shown by an analysis of the records when grouped by source of income and by areas:

(1) The largest investment per farm was on cattle farms in Areas 2, 3, 4, and 5; on hog farms in Areas 6 and 7; and on grain farms in Area 8. The investment per farm depended chiefly on the size of farm and to a less degree on the quality of land and the amount of improvements, machinery, and livestock.

(2) The grain farms were on the best land as indicated by the fact that they had the highest land value per acre and the highest percentage of tillable land in all areas except 1 and 7. Dairy farms and poultry farms were on land which had a low value per acre, and the dairy farms had a high percentage of nontillable land. Dairy and beef cattle farms had a relatively small percentage of tillable land in corn and a large percentage in hay and pasture.

(3) The largest value of feed fed per acre in Areas 2, 3, 4, and 5 was on the beef cattle farms; on the hog farms in Areas 6 and 7; on the dairy farms in Area 1; and on the poultry farms in Area 8. The smallest value of feed fed per acre was on the intensive grain farms in all areas where this classification was found.

(4) The returns for each $100 of feed fed were higher for the dairy and poultry farms than for the hog and beef cattle farms, because feed is a smaller percentage of the cost of producing dairy products and poultry than of the cost of producing hogs and cattle.

The returns per $100 of feed fed necessary to pay feed and other costs for a group of central Illinois farms for the five-year period

[1]Averages were not calculated for a number of groups where the number of farms was small.

TABLE 18.—VARIATIONS IN ILLINOIS ACCOUNTING FARMS DUE TO DIFFERENCES IN SOURCE OF INCOME, BY FARMING-TYPE AREAS, 1926-1935

Area	Source of income							
	Grain 60%+	Grain 40-59%	Hogs 40%+	Cattle 40%+	Dairy sales 40%+	Poultry 40%+	Hogs and cattle each 40%+	All less than 40%
Number of records[a]								
1	.....	.....	.....	...	546	...	...	65
2	.....	153[b]	648	219	377	...	...	489
3	255	423	1 866	262	114	...	105	550
4	1 936	1 489	1 159	283	533	...	...	1 053
5	230	247	990	86	177	...	...	401
6	111	257	101	...	507	43	...	641
7	47	67	113	...	98	40	...	280
8	45	42	100	...	32	30	...	138
Total	2 624	2 678	4 977	850	2 384	113	105	3 617
Investment per farm								
1	.....	.....	.....	.....	$32 661	.....	.....	$33 614
2	.....	$36 275	$34 044	$47 677	26 459	.....	.....	32 145
3	$46 926	42 455	38 745	56 892	31 675	.....	$57 322	36 059
4	52 151	47 206	45 523	59 762	37 022	.....	.....	41 838
5	38 553	31 982	29 707	44 127	25 193	.....	.....	25 194
6	19 142	19 160	20 167	.....	17 338	$13 296	.....	16 382
7	13 828	16 186	20 141	.....	12 749	8 771	.....	13 058
8	27 743	22 761	20 692	.....	15 249	12 271	.....	13 724
Acres per farm								
1	...	...	...	...	171	...	...	208
2	...	218	196	265	158	...	...	198
3	265	237	212	288	182	...	300	208
4	270	241	228	275	186	...	...	221
5	265	237	223	280	172	...	...	210
6	172	197	220	...	166	151	...	180
7	213	237	204	...	164	130	...	184
8	250	264	208	...	144	147	...	164
Investment per acre in land								
1	....	....	....	....	$111	...	...	$ 98
2	....	$117	$111	$112	100	...	...	103
3	$137	135	128	131	115	...	$129	124
4	151	149	147	151	137	...	...	141
5	116	103	94	108	93	...	...	83
6	72	64	55	...	62	$47	...	57
7	43	44	63	...	45	37	...	41
8	87	61	66	...	67	48	...	55
Months of man labor per farm								
1	....	....	....	....	25.7	....	....	24.7
2	....	20.7	20.5	25.0	20.5	....	....	20.5
3	21.8	21.1	20.9	26.0	20.7	....	28.1	20.2
4	22.1	21.6	22.4	25.5	22.9	....	....	21.4
5	22.4	22.1	21.4	25.7	23.3	....	....	20.4
6	21.9	21.7	22.1	....	21.7	22.1	....	21.1
7	20.8	20.3	21.2	....	19.8	15.6	....	18.6
8	21.7	21.6	22.3	....	21.6	16.7	....	17.4

[a]A total of 17,348 records were used, distributed as follows: **Area 1**, 611; **Area 2**, 1,886; **Area 3**, 3,575; **Area 4**, 6,453; **Area 5**, 2,131; **Area 6**, 1,660; **Area 7**, 645; and **Area 8**, 387. [b]Includes a few borderline farms getting more than 59 percent of their income from grain.

(*Table is concluded on next page*)

TABLE 18.—VARIATIONS IN ILLINOIS ACCOUNTING FARMS DUE TO DIFFERENCES IN SOURCE OF INCOME (*Concluded*)

Area	Source of income							
	Grain 60%+	Grain 40-59%	Hogs 40%+	Cattle 40%+	Dairy sales 40%+	Poultry 40%+	Hogs and cattle each 40%+	All less than 40%
	Percent of land area tillable							
1	....	....	....	....	80.1	....	....	82.2
2	....	85.8	82.7	81.5	77.2	....	....	81.8
3	89.4	88.2	82.1	79.9	72.5	....	78.7	80.8
4	92.6	90.0	87.3	88.7	84.4	....	....	86.0
5	90.6	84.4	76.2	82.1	80.8	....	....	76.2
6	86.6	86.3	72.7	....	82.5	85.4	....	82.8
7	83.6	88.2	80.4	....	83.5	75.4	....	83.2
8	91.2	88.3	85.6	....	80.6	87.8	....	86.6
	Feed fed per acre to productive livestock							
1	....	....	....	....	$14.15	....	....	$ 9.60
2	....	$6.49	$13.61	$15.35	11.61	....	....	10.73
3	$3.78	5.70	12.59	17.12	10.81	....	$16.73	8.70
4	3.04	5.42	10.87	15.05	10.10	....	....	7.88
5	3.38	4.27	9.62	11.21	8.95	....	....	6.15
6	4.24	4.41	13.58	....	7.78	$11.85	....	6.06
7	2.74	2.81	8.73	....	7.12	6.00	....	4.74
8	3.34	4.25	7.38	....	6.77	8.05	....	5.12
	Returns per $100 of feed fed							
1	...	...	...	...	$163	...	...	$151
2	...	$126	$129	$126	152	...	...	141
3	$123	137	135	128	146	...	$148	138
4	125	137	131	133	159	...	...	140
5	140	154	138	141	177	...	...	142
6	107	139	137	...	148	$157	...	149
7	108	147	133	...	169	155	...	153
8	106	124	147	...	205	140	...	154
	Percent earned on investment							
1	....	....	....	....	4.05	....	....	3.62
2	....	3.80	3.24	3.44	3.07	....	....	4.09
3	4.48	3.96	3.44	3.72	2.55	....	3.22	3.54
4	3.34	3.21	2.57	3.33	2.62	....	....	2.82
5	5.00	4.22	2.52	3.80	3.16	....	....	2.39
6	4.01	4.55	5.88	....	2.25	4.26	....	3.34
7	4.74	4.37	1.99	....	1.99	−2.61	....	2.06
8	7.17	5.12	2.55	....	3.25	2.62	....	.96
	Corn yields, bushels per acre							
1	....	....	....	....	37.2	....	....	38.6
2	....	45.5	46.7	47.7	44.7	....	....	45.2
3	41.8	46.7	45.4	48.8	43.0	....	48.8	45.1
4	43.7	43.6	43.2	44.7	39.1	....	....	41.9
5	40.5	40.3	37.7	36.7	38.4	....	....	34.9
6	33.8	33.9	31.2	....	27.4	31.8	....	28.8
7	30.3	30.5	32.9	....	27.2	25.9	....	27.7
8	40.2	36.9	33.0	....	29.1	35.0	....	32.5

1933-1937 were: feeder cattle, $117; hogs, $127; dairy cattle, $157; and poultry, $195.

(5) Corn yields did not vary much between farms with different sources of income. In Areas 2, 3, and 4 cattle farms had the highest corn yield while dairy farms had the lowest yield. In Areas 5, 6, and 8, grain farms had the highest yield, while hog farms had the highest yield in Area 7.

The months of man labor per farm was about the same for all source-of-income groups except that the beef-cattle farms used more labor than the other groups since the farms were large.

(6) The highest return for the capital invested in the business was on the intensive grain farms in Areas 3, 4, 5, 7, and 8; on the dairy farms in Area 1; on the mixed-income farms in Area 2; and on the hog farms in Area 6.[1] These records indicate that the accounting farmers have adjusted the type of organization to the conditions found in the various areas so that there is not much difference between areas or between source-of-income groups in rate earned on investment.

Variations in Northern and Southern Illinois

To make a more complete analysis, the northern and southern Illinois records were grouped separately and averages calculated based on the six sources of income. In Areas 2, 3, 4, and 5, a total of 13,934 records for the ten-year period were grouped to represent northern Illinois, exclusive of the Chicago dairy areas; in southern Illinois (Areas 6, 7, and 8), 2,692 records were used for the ten-year period (Tables 19 and 20). In northern Illinois 33.5 percent of the farms were hog farms, 17.9 percent were mixed-income farms, 17.4 percent were intensive grain farms, 16.5 percent were farms having 40-59 percent of the income from grain, 8.6 percent were dairy farms, and 6.1 percent were cattle farms. In southern Illinois the distribution was: mixed-income farms, 39.3 percent; dairy farms, 23.7 percent; 40-59 percent of the income from grain, 13.6 percent; hog farms, 11.7 percent; intensive grain farms, 7.5 percent; and poultry farms, 4.2 percent.

Size of farm and quality of land. In northern Illinois the cattle farms were largest, the intensive grain farms second largest, and the dairy farms smallest. They ranged in size from an average of 178 acres per farm for the dairy farms to 277 acres per farm for the cattle farms (Table 19). In southern Illinois the farms with 40-59 percent grain averaged 227 acres per farm as contrasted with an average of 162 acres for the dairy farms and 140 acres for the poultry farms (Table 20).

In northern Illinois the investment per acre in land ranged from

[1]The high return on the hog farms in Area 6 was due to the effect of two large and unusually successful farms.

TABLE 19.—ANALYSIS OF RECORDS OF ILLINOIS ACCOUNTING FARMS, BY SOURCE OF INCOME: AVERAGES OF FARMING-TYPE AREAS 2, 3, 4, AND 5, 1926-1935

Items	Grain 60%+	Grain 40-59%	Hogs 40%+	Cattle 40%+	Dairy sales 40%+	All less than 40%
Number of records	2 421	2 312	4 663	850	1 195	2 493
Acres per farm	267	236	219	277	178	212
Investment per farm						
Land	$37 092	$31 007	$27 652	$36 470	$20 995	$25 357
Buildings	4 212	4 292	4 786	6 729	4 789	4 277
Total investment	47 335	41 211	38 895	53 893	31 711	35 502
Receipts						
Productive livestock	$1 161	$1 832	$3 472	$5 656	$3 024	$2 518
Grain	3 229	1 981	135	.....	177	683
Total receipts	4 480	3 917	3 759	5 889	3 357	3 379
Total expenses	$1 829	$1 617	$1 872	$3 233	$1 635	$1 456
Operator and family labor	772	808	786	761	848	831
Net farm receipts	1 879	1 492	1 101	1 895	874	1 092
Rate earned on investment, percent	3.97	3.62	2.83	3.52	2.76	3.08
Investment per acre in land	$ 139	$ 131	$ 126	$ 132	$ 118	$ 120
Gross receipts per acre	$ 16.78	$ 16.60	$ 17.16	$ 21.26	$ 18.86	$ 15.94
Expenses per acre	9.74	10.28	12.14	14.42	13.95	10.79
Net receipts per acre	7.04	6.32	5.02	6.84	4.91	5.15
Percent tillable land in corn	42.2	40.4	39.4	39.0	32.9	37.5
Percent tillable land in hay and pasture	16.3	21.8	28.4	30.7	35.6	28.7
Percent of land area tillable	91.3	87.8	83.1	84.3	80.1	82.1
Average yield of corn, bushels	42.4	43.8	43.0	44.2	40.6	41.5
Average yield of oats, bushels	34.9	35.0	35.5	37.7	35.6	35.4
Feed per acre to productive livestock	$ 3.31	$ 5.38	$ 11.36	$ 14.67	$ 10.22	$ 8.09
Return per $100 feed fed	128	139	133	133	159	140
Months labor per 100 tillable acres	9.0	10.4	11.9	10.9	15.4	12.1

$118 for the dairy farms to $139 for the intensive grain farms. Ninety-one percent of the land was tillable on the grain farms and 80 percent on the dairy farms, thus indicating higher quality of land on the grain farms. In the southern part of the state the average investment per acre in land was $59 for the intensive grain farms, $60 for the hog farms, but only $42 for the poultry farms. The grain farms had the largest percentage of land area tillable, and the hog and poultry farms had the smallest. (Tables 19 and 20)

Land use. The percentage of tillable land in corn in northern Illinois ranged from 32.9 on the dairy farms (Fig. 29) to 42.2 on the intensive grain farms. In southern Illinois, where wheat is a more important crop than corn on many farms, the percentage of tillable land in corn was much less than it was in the northern section, ranging from 21.1 on the less intensive grain farms to 31.0 percent on the hog farms. The percentage of tillable land in wheat was particularly high on the grain farms. The percentages of tillable land in wheat in southern Illinois were: intensive grain farms, 20.7; farms with 40-59 percent grain, 20.9; hog farms, 13.6; poultry farms, 12.2; dairy farms, 12.9; and mixed-income farms, 15.2.

In northern Illinois the percentage of tillable land in hay and pasture ranged from 16.3 on the intensive grain farms to 35.6 on the dairy farms (Fig. 29). In the southern part of the state the percentage ranged from 31.4 on the intensive grain farms to 49.6 on the dairy farms. The yields of corn and oats on these farms are shown in Fig. 30.

For groups of accounting farms it appeared that the cropping systems were adjusted to the character of the land and that the live-

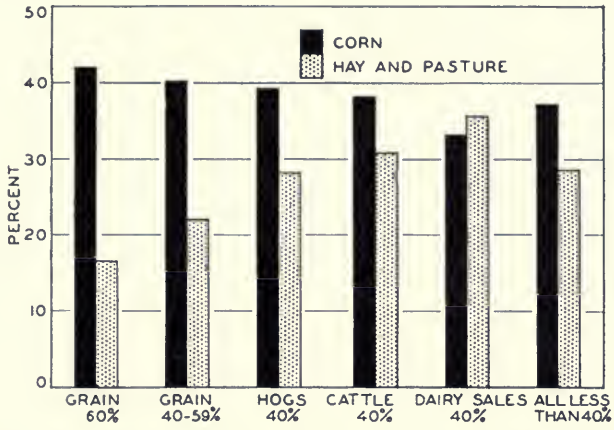

FIG. 29.—PERCENT OF TILLABLE LAND IN CORN AND IN HAY AND PASTURE ON ACCOUNTING FARMS GROUPED ACCORDING TO MAIN SOURCE OF INCOME, AREAS 2 TO 5, AVERAGES FOR 1926-1935

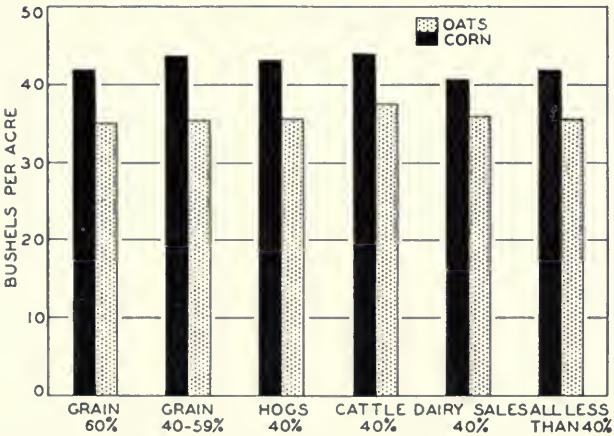

FIG. 30.—YIELDS OF CORN AND OATS ON ACCOUNTING FARMS GROUPED ACCORDING TO MAIN SOURCE OF INCOME, AREAS 2 TO 5, AVERAGES FOR 1926-1935

stock organizations were on the whole rather well adjusted to the kind of crops produced.

Value of feed fed and returns from feed. The value of feed fed per acre to productive livestock varied from $14.67 for the cattle farms to $3.31 for the intensive grain farms in the northern section of the state, and from $10.24 for the hog farms to $3.34 for the intensive grain farms in the southern section. In both regions more feed was fed on the hog and cattle farms than on the dairy farms.

In both sections the largest return for $100 of feed fed was on the dairy farms, and the smallest return was on the intensive grain farms (Fig. 31).

Farm investments. The average investment per farm in northern Illinois varied from $31,711 on the dairy farms to $53,893 on the cattle farms and in southern Illinois from $10,825 on the poultry farms to $20,225 on the hog farms. In the northern section the investment in land was larger on the intensive grain farms than on the cattle farms, but the investments in buildings, feed, livestock, and machinery were much larger on the cattle farms (Fig. 32). The smaller investment on the dairy farms was due to a smaller acreage and a lower value of the land. The percentage of the total farm investment in land in the

TABLE 20.—ANALYSIS OF RECORDS OF ILLINOIS ACCOUNTING FARMS, BY SOURCE OF INCOME: AVERAGES OF FARMING-TYPE AREAS 6, 7, AND 8, 1926-1935

Items	Grain 60%+	Grain 40-59%	Hogs 40%+	Poultry 40%+	Dairy sales 40%+	All less than 40%
Number of records	203	366	314	113	637	1 059
Acres per farm	204	227	210	140	162	180
Investment per farm						
Land	$12 006	$11 998	$12 679	$5 923	$8 706	$8 715
Buildings	1 978	2 276	2 942	2 106	2 299	2 194
Total investment	17 577	18 119	20 225	10 825	14 689	14 307
Receipts						
Productive livestock	$ 740	$1 206	$3 197	$1 876	$2 116	$1 509
Grain	1 955	1 281	.....	.....	16	225
Total receipts	2 756	2 603	3 319	1 965	2 246	1 914
Total expenses	$1 188	$1 062	$1 963	$1 179	$1 208	$ 844
Operator and family labor	691	714	664	663	704	723
Net farm receipts	877	827	692	123	334	347
Rate earned on investment, percent	4.99	4.56	3.42	1.14	2.27	2.43
Investment per acre in land	$ 59	$ 53	$ 60	$ 42	$ 54	$ 48
Gross receipts per acre	$ 13.51	$ 11.47	$ 15.80	$ 14.04	$ 13.86	$ 10.64
Expenses per acre	9.21	7.82	12.51	13.16	11.80	8.71
Net receipts per acre	4.30	3.65	3.29	.88	2.06	1.93
Percent tillable land in corn	24.8	21.1	31.0	23.1	23.1	22.4
Percent tillable land in hay and pasture	31.4	38.9	38.5	43.7	49.6	44.8
Percent of land area tillable	85.7	87.6	78.4	80.6	82.8	83.5
Average yield of corn, bushels	32.9	32.6	32.3	29.2	27.5	28.7
Average yield of oats, bushels	25.1	22.9	25.3	23.4	22.5	21.6
Feed per acre to productive livestock	$ 3.34	$ 3.56	$ 10.24	$ 8.32	$ 7.30	$ 5.25
Return per $100 feed fed	107	141	136	154	167	152
Months labor per 100 tillable acres	12.6	10.8	13.0	15.9	15.2	12.9

northern section was: intensive grain farms, 78.4; farms with 40-59 percent grain, 75.2; mixed-income farms, 71.4; hog farms, 71.1; cattle farms, 67.7; and dairy farms, 66.2.

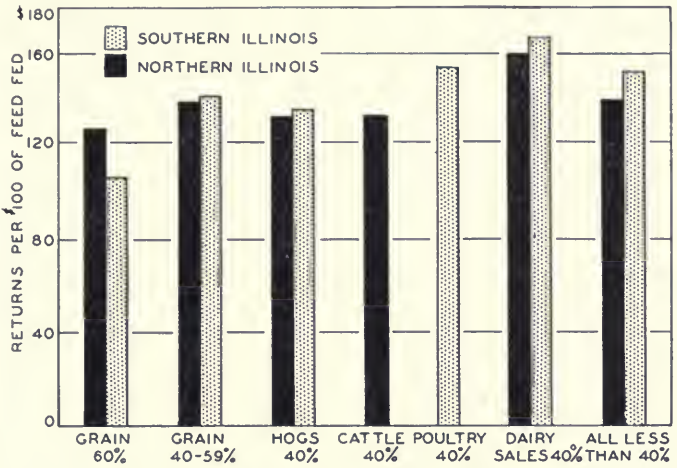

FIG. 31.—RETURNS PER $100 OF FEED FED ON ACCOUNTING FARMS GROUPED ACCORDING TO MAIN SOURCE OF INCOME, NORTHERN AND SOUTHERN ILLINOIS, AVERAGES FOR 1926-1935

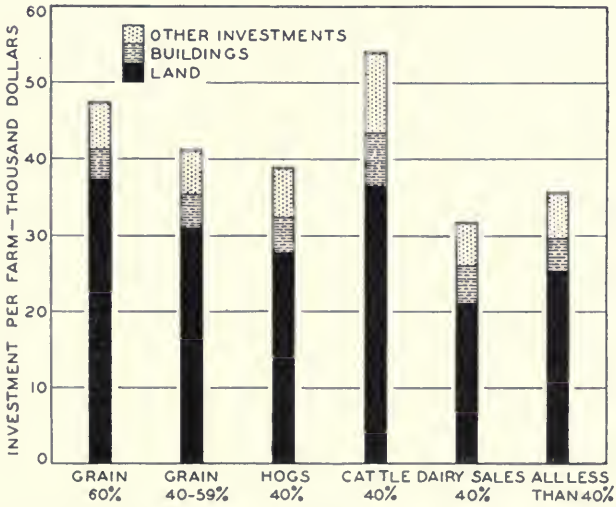

FIG. 32.—INVESTMENT PER FARM ON ACCOUNTING FARMS GROUPED ACCORDING TO MAIN SOURCE OF INCOME, AREAS 2 TO 5, AVERAGES FOR 1926-1935

In southern Illinois the poultry farms were very small, a higher percentage of the land was untillable, and the value of the land per acre was low.

Farm receipts. In northern Illinois gross receipts per farm were largest on the cattle farms and smallest on the dairy farms (Fig. 33); in southern Illinois the largest receipts were on the hog farms and the smallest on the mixed-income farms.

The percentages of gross receipts from productive livestock were:

Type of farm	*Northern Illinois*	*Southern Illinois*
Grain 60 percent or more	25.9	26.9
Grain 40–59 percent	46.8	46.3
Hogs 40 percent or more	92.4	96.3
Cattle 40 percent or more	96.0	....
Poultry 40 percent or more	....	95.5
Dairy sales 40 percent or more	90.1	94.2
All less than 40 percent	74.5	78.8

There was no income from grain on the cattle farms of northern Illinois or on the hog and poultry farms of southern Illinois because the value of feeds purchased exceeded the value of crops sold. Incomes from sources other than livestock and grain were small for all income groups.

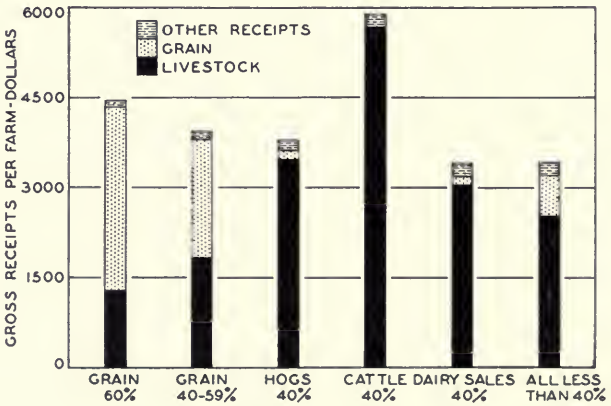

FIG. 33.—GROSS RECEIPTS PER FARM ON ACCOUNTING FARMS GROUPED ACCORDING TO MAIN SOURCE OF INCOME, AREAS 2 TO 5, AVERAGES FOR 1926-1935

In northern Illinois gross receipts per acre ranged from $15.94 on the mixed-income farms to $21.26 on the cattle farms and in the southern part from $10.64 on the mixed-income farms to $15.80 on the hog farms. Expenses per acre were highest on the cattle farms in the north and on the poultry farms in the south and lowest on the

grain farms in both regions. In northern Illinois the highest net receipts per acre were on the intensive grain farms and the lowest on the dairy farms (Fig. 34); in southern Illinois the net receipts per acre were highest on the intensive grain farms and lowest on the poultry farms.

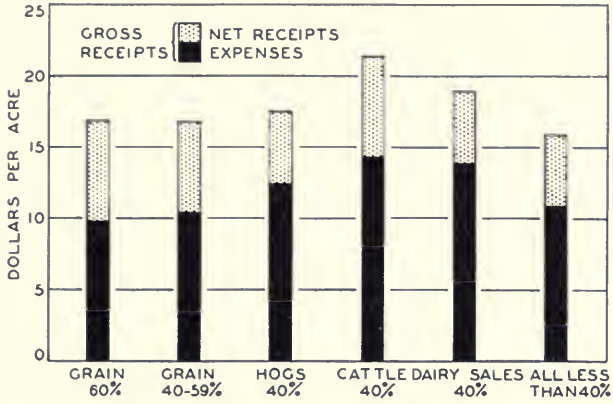

FIG. 34.—GROSS RECEIPTS, EXPENSES, AND NET RECEIPTS PER ACRE ON ACCOUNTING FARMS GROUPED ACCORDING TO MAIN SOURCE OF INCOME, AREAS 2 TO 5, AVERAGES FOR 1926-1935

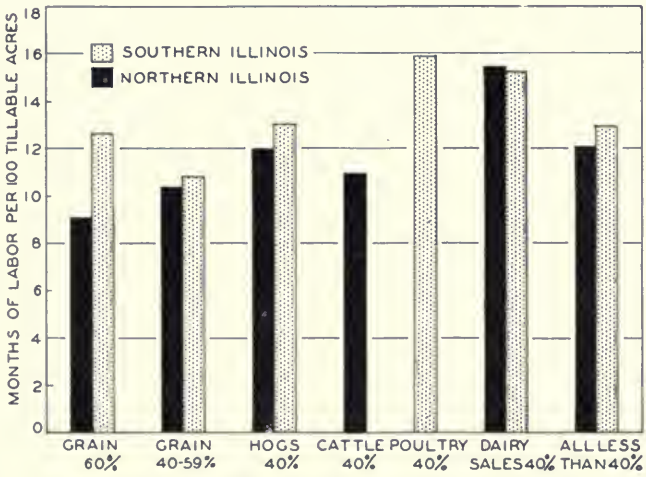

FIG. 35.—MONTHS OF LABOR USED PER 100 TILLABLE ACRES ON ACCOUNTING FARMS IN NORTHERN AND SOUTHERN ILLINOIS GROUPED ACCORDING TO MAIN SOURCE OF INCOME, AVERAGES FOR 1926-1935

The source-of-income groups clearly indicated varying degrees of intensity of operation. The output in value of farm products increased as the amount of livestock increased, but the input of labor, capital, and management increased even more rapidly. Expenses for improvements, machinery, labor, and miscellaneous livestock items increased similarly as the amount of livestock increased. The relative profitableness of the types of farm organization depended to a considerable degree upon the relative prices of farm products.

Labor, an important farm expense, fluctuates with the amount of livestock. The labor input was only 9 months for each 100 tillable acres on the grain farms of northern Illinois, but was over 15 months for each 100 tillable acres on the dairy farms of northern Illinois and on the poultry and the dairy farms of southern Illinois (Fig. 35). Labor input increased for all groups as the feed fed per acre increased, but it increased more rapidly on the dairy farms than on the beef cattle and hog farms.

Rate earned on investment. For the average of the period 1926-1935 in northern Illinois (exclusive of the Chicago dairy area), the return for the capital invested in the business was highest on the intensive grain farms and lowest on the dairy farms. The highest return in southern Illinois was on the intensive grain farms and the lowest on the poultry farms (Fig. 36).[1] It is important to remember, however, that the operators of the grain farms probably depleted the fertility of their farms more rapidly than did the operators of the livestock farms. On the intensive grain farms in northern Illinois only 16.3 percent of the tillable land was in hay and pasture as contrasted with 30.7 percent on the beef cattle farms and 35.6 percent on the dairy farms.

Comparison of Grain and Livestock Farms

Most of the grain farms were on the more level prairie soil where erosion was not a big problem. They were not required to have as high a percentage of tillable land in hay and pasture in order to maintain a high level of yields as were the livestock farms on the more rolling land. Crop yields were higher on the cattle farms than on the intensive grain farms, altho the land on the cattle farms was valued at a lower rate per acre and altho a smaller percentage was tillable. By using more farm machinery operators of large grain farms were able to reduce their operating expenses more than could operators of other types of farms.

The use of general-purpose tractors and motor-operated equipment had a very important bearing on the relative profits from various types of farms during the period 1926-1935. It enabled farmers to

[1]The rate earned on poultry farms varied widely, however, being much higher in Area 6 than in Area 7 (Table 18).

reduce the labor used in producing crops and to make a material reduction in the total cost per acre. Fewer labor-saving devices have been developed to reduce the labor needed in producing most classes of livestock. In fact, increased difficulties in disease control on many farms have increased rather than decreased the amount of labor on livestock farms during the period of this study.

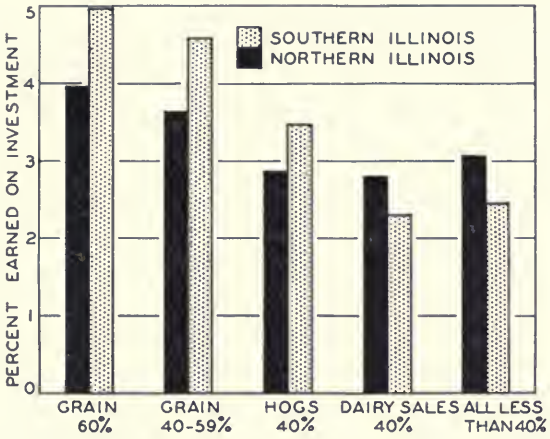

FIG. 36.—RATE EARNED ON INVESTMENT BY ACCOUNTING FARMS IN NORTHERN AND SOUTHERN ILLINOIS GROUPED ACCORDING TO MAIN SOURCE OF INCOME, AVERAGES FOR 1926-1935

The grain farms averaged larger than the livestock farms, and had a lower operating cost per acre (when no charge is made for fertility losses).

Other factors helped increase the advantage of grain farms over livestock farms, such as the use of hybrid corn and improved varieties of other crops, which increased production per acre without appreciably increasing cost. There was no comparable improvement in efficiency of producing livestock and livestock products.

The severe decline in the volume of pork and lard exports from 1929 to 1937 seriously depressed the price of hogs and had a bearing on the relative profitableness of grain and livestock farms. From 1924 to 1929 the average annual exports of lard were equivalent to the lard produced by 23.5 million hogs, but in 1937 the exports were equal only to the lard produced by 3 million hogs.

SUMMARY AND CONCLUSIONS

The reactions of progressive farm operators to a wide variety of physical and economic conditions is shown by an analysis of nearly 18,000 records kept in cooperation with the Extension Service of the University of Illinois from 1926 to 1937. These records show the land use on the accounting farms during these years and how investments, incomes, expenditures, and earnings differed from year to year and between farming-type areas. The records were also grouped to show differences in farm organization and income resulting from differences in size of farm and in sources of income.

The farms from which these records were taken were better-than-average farms. They were larger than the average farm in their locality and had better managers. The organization on the accounting farms can therefore serve as an example to other Illinois farmers who wish to increase their production and their efficiency.

During the period covered by this study there were violent fluctuations in the prices of farm products. The index of Illinois farm prices, which was 145 in 1929 (1910-14 = 100), slumped to a low of 58 in 1932, but advanced again to 134 in 1937. The ratio of prices received by farmers to prices paid by farmers declined from 103 in 1929 to 60 in 1932 and increased to 106 in 1937. The effect of these violent price changes on all phases of farm organization and operation is shown in this publication.

Changes in Incomes, Investments, and Expenditures

The average value of capital used on accounting farms in 1935 was only 70 percent of that for 1927, and by 1937 it had advanced to only 74 percent of the 1927 level even tho the average size of farm had increased 14 percent. These variations reflected the changes in prices of farm products during the period, except that the inventory value of land on the accounting farms did not fully reflect the fluctuations in the selling prices of farm land. The average inventory value of land which was $130 an acre in 1926 was only $79 an acre in 1937.

The inventory value of improvements declined 15 percent from 1930 to 1937; during this period of low farm incomes there was little new construction and buildings were not kept in repair. The average expenditure per farm for buildings, fences, building insurance, limestone, and rock phosphate was $264 in 1929, $73 in 1932, and $274 in 1937.

The inventory value of machinery increased during periods of favorable price ratios and decreased during years when farm prices declined. The average expenditure per farm for machinery, gas, oil, and repairs in 1932 was only 39 percent of that for 1929, but by 1937 it had reached a peak of 48 percent above the previous high of 1929.

These changes reflected both the changes in farm income and the increased use of power machinery.

Cash expenditures for labor in 1933 were only 44 percent of those for 1928; the decline was due to a drop in wage rates as there was no change in the amount of labor per farm. The months of labor per 100 tillable acres, however, declined from 12.5 in 1926 to 11.4 in 1937, during which time the average size of farm increased. This increase in size of farm was not enough to offset the decline in the amount of labor required per crop acre which resulted from increased mechanization. Therefore there was a reduction in the amount of work done per worker since there was no decline in the labor available per farm.

Taxes averaged $1.66 an acre in 1927, 95 cents in 1935, and $1.03 in 1937.

The total cash business expenditures per farm were $3,180 in 1928, $1,494 in 1933, and $3,424 in 1937. During periods of low farm prices farmers were poor customers for goods, but when prices increased they bought increased quantities of manufactured goods, indicating the extent to which industry is dependent upon a prosperous agriculture to furnish a market for its products.

The average accounting family had a cash balance of only $968 in 1932 for family living, interest, debt payments, and savings—only 40 percent of the amount available in 1929. This amount was much smaller for the average of all farms in Illinois, which indicates why there was widespread unrest and distress among farm people during the depression years and a demand for legislation concerning parity prices and the prevention of farm foreclosures.

If the net cash income per acre is capitalized at five percent, land and improvements were worth $123 an acre in 1929 and 1936, but only $7 an acre in 1932. The average for the twelve-year period was $79 an acre. The long-time earnings on accounting farms should be studied especially by those who wish to purchase farms and by those who make farm loans. If superior managers made a five-percent return on a valuation of only $79 an acre for the period 1926-1937, a prospective purchaser who pays more for land of average quality must either be a better manager than the account keepers, or accept less than a 5-percent return for his capital, or expect prices of farm products to have a more favorable ratio to goods purchased than prevailed during this twelve-year period.

Variations by Farming-Type Areas

The farm account records, summarized by farming-type areas, picture the reactions of successful farmers to variations in soil types, topography, climate, markets, and labor supply found in different portions of Illinois. The patterns of farm organization and operation worked out by the account keepers are those most likely to succeed

in each area and under different soil conditions. This portion of the study demonstrates differences in size of farm, capital investment, crop yields, land use, livestock organization, mechanization, and farm incomes resulting from variations in physical and economic conditions.

The accounting farms were 31 percent larger in the grain area of east-central Illinois than in the St. Louis dairy area. The total investment per farm was over 3 times as large in the grain area as in Area 7 of southern Illinois. Investments in buildings were largest in the livestock areas of northern Illinois where there is more feed, livestock, and machinery to house and where winters are more severe than in southern Illinois.

The investment per acre in livestock ranged from $7.77 in Area 8 to $18.32 in Area 1. Areas 2 and 3 also had large livestock investments.

The investment per farm in machinery was highest in Area 1 where it was almost twice as large as in Areas 7 and 8. Farms in northern Illinois were more completely mechanized than those in southern Illinois.

Dairy farms predominated in those regions near centers of population which provided a market for whole milk. Poultry farms had a maximum advantage in southern Illinois where farms were small, grain production was at a relatively low level, and there was abundant labor. Both poultry and dairy enterprises were used to increase the volume of business on small farms, since the labor requirements of these enterprises are high in relation to feed requirements. Grain farming predominated in areas of relatively level land which was adapted to large machinery and where crop yields were high.

Hog farms were most numerous in the western half of central Illinois, where there is an abundant supply of corn and where hogs fit in with other types of livestock production adapted to the area. Beef cattle and sheep were used on the more rolling farms to utilize the hay and pasture so essential to the maintenance of good crop yields. The choice between beef cattle and dairy cattle was influenced primarily by available markets, size of farm, and labor supply.

The excess of cash income over cash expenses (cash balance) ranged from $997 per farm for Area 7 to $2,335 in Area 4. The rate earned on investment was about the same for all areas for the twelve-year period, indicating that the average value of land in the various areas was such that the opportunity for making a return on capital invested in farms was practically the same in all sections of the state. However, farm owners in northern Illinois who have their farms free from debt have more to spend for family living than owners in southern Illinois because of the greater farm investment in northern Illinois.

Land and buildings were worth $101 an acre in Areas 1, 2, 3, and 4 for the period 1926-1937 (net income capitalized at 5 percent). In

Area 5 the earned value was $66; in Area 6, $30; in Area 7, $14; and in Area 8, $47.

Land Use on Accounting Farms

Farm-account keepers grow more legumes and less grain crops than the average farmers in their respective communities. The percentage of tillable land in corn on accounting farms increased from 34.8 percent in 1926 to 39.5 percent in 1932, declined to a low of 26.8 percent in 1934, but increased again to 34.6 percent in 1937. The high acreage in 1932 represented an attempt to get high production to offset very low prices, while the changes from 1934 to 1937 were influenced by the Agricultural Adjustment programs. The acreage of soybeans for grain increased from .7 acre per farm in 1926 to 15.7 acres in 1935. The soybean acreage was concentrated in the southern part of east-central Illinois, the maximum for Area 5 during the period being 23 acres per farm in 1934 and the maximum for Area 4, 35 acres per farm in 1935.

The tillable land in hay and pasture averaged 52.4 acres per farm for the four years 1930-1933, but jumped to 70.5 acres in 1934 as a result of the corn-hog program. A further effect of the adjustment programs was to cause an increase in "other crops" such as legumes seeded alone, oats clipped, and soybeans plowed under. Ninety-one percent of the accounting farmers received benefit payments in 1934 but only 69 percent in 1937. The average payment per farm was $256 in 1934, $342 in 1935, but only $160 in 1937.

Corn yields on accounting farms were 19 percent higher than the average of all farms in the state. They averaged 40.2 bushels an acre from 1926 to 1937; they were above 44 bushels in four years and below 35 bushels in three. This period was before the general introduction of hybrid corn. There was no apparent correlation between size of farm and corn yields.

High production on accounting farms was associated with a higher-than-average proportion of land in legumes and grasses. The Federal Agricultural Adjustment programs caused many other farmers to adopt cropping patterns similar to those found on accounting farms; thus over a period of years these programs resulted in increased production per farm rather than in reduced production. Many Illinois farmers could increase their yields, control soil erosion better, and increase their net farm income by following the general cropping patterns used by accounting farmers.

The acreages in various crops varied considerably between the areas; the average acreage of corn per farm for the twelve-year period ranged from 35.5 acres in Area 6 to 89.8 acres in Area 4. Less than 10 acres of wheat per farm were grown in Areas 1, 2, and 3, but more than 30 acres were grown in Areas 5, 6, and 8. The acreage of hay was

least in Area 4 and greatest in Area 7. These variations in land use indicate how the accounting farmers adjusted their cropping systems to meet differences in soil type, slope, and susceptibility to erosion, as well as to meet the goals established by the Agricultural Adjustment programs.

Influence of Size of Farm

To study the effect of size of farm on farm organization and income the accounting farms in selected areas were classified into various size-groups. Fifty-four percent of the accounting farms in Area 4 and 50 percent in Area 5 were over 200 acres in size. A high percentage of large farms were in the grain areas and a high percentage of small farms in the dairy areas. More feed was fed per acre on the small farms than on the large farms.

For each size-group the labor input per 100 tillable acres was largest in Area 1 and second largest in Area 6 (the dairy areas), but smallest in Area 4 (the grain area). There was a close relationship between the labor input per 100 tillable acres and the labor cost per crop acre; in all areas both declined as the size of farm increased.

For the accounting farms as a whole in Areas 3, 4, and 5, 95 percent of the income on the smallest farms was from livestock but only 68 percent on the largest farms. A higher percentage of the land was tillable and the land value was higher on the small than on the large farms.

In central Illinois gross receipts, operating expenses, and investment per acre declined as the size of farm increased. The largest average net receipts per acre and the largest rate earned on the investment were for the 280-acre farms. In Area 1 the 160-acre farms were the most efficient, and in Area 6 the 240-acre farms.

The months of labor per 100 tillable acres declined as the size of farm increased, ranging from 19.6 months for the 80-acre farms to 8.9 months for the 400-acre farms, due mainly to a corresponding decline in the amount of livestock per acre and to the economy which resulted from the increased mechanization on the larger farms.

The increased mechanization of all farms during this period meant that farmers could handle a larger business than formerly. The most profitable method of doing this was to increase the size of farm, and as a result the acreage on accounting farms increased about 14 percent from 1926 to 1937. Not all farmers could secure more land to operate, so some intensified their business by growing intensive crops, shifting to classes of livestock which require more labor, or by increasing the amount of livestock on the farm.

Persons who purchase farms should study these records to find the most efficient size of farm for the type of land to be purchased. The most efficient size for grain farming is much larger than the most efficient size for dairy or poultry farms.

In central Illinois if the operators of the 80-acre and the 320-acre farms had half of their capital borrowed at five percent, the families on the smaller farms would have had $436 a year from the farm for family living expenses and savings, but the families on the larger farms would have had $1,288 a year for the ten-year period.

Effect of Variations in Source of Income

The accounting records were sorted according to the percentage of gross receipts derived from various sources. For the period 1926-1935, 29.7 percent of the accounting farms were classified as grain farms, 27.9 percent as hog farms, 20.2 percent as mixed-income farms, 13.3 percent as dairy farms, and 5.0 percent as beef cattle farms. Beef cattle farms averaged largest in size, followed by the grain farms, while the dairy and poultry farms were smallest.

The grain farms were on the best land, and the dairy farms were on the poorest land. The dairy and beef cattle farms had a smaller percentage of tillable land in corn and a larger percentage in hay and pasture than had the grain farms. Apparently the operators of these farms on the average had adjusted their grain and livestock systems to variations in the quality of their land.

The average yields of corn and oats for the different source-of-income groups in northern Illinois varied little since the better land on the grain farms offset the effect of the higher percentage of tillable land in hay and pasture and the additional manure on the livestock farms.

In northern Illinois the value of feed fed per acre to productive livestock ranged from $3.31 for the farms having over 60 percent of income from grain to $14.67 for the cattle farms, and in southern Illinois from $3.34 for the intensive grain farms to $10.24 for the hog farms. More feed was fed on hog and cattle farms than on dairy farms. In northern Illinois the percent of gross income from livestock ranged from 26 percent on the intensive grain farms to 96 percent on the cattle farms.

On the grain farms of northern Illinois an average of only nine months of man labor was available per 100 tillable acres per year; whereas on the dairy farms in the same region and on the poultry farms of southern Illinois fifteen months were available.

There were no striking differences between source-of-income groups in rate earned on investment. In Areas 2, 3, 4, and 5, the average rate earned on intensive grain farms was 3.97 percent compared with 2.76 percent for the dairy farms. The average rate earned on dairy farms in the Chicago area (Area 1) was 4.05 percent. In southern Illinois farms getting 60 percent of their income from grain earned the highest rates. Operators of grain farms, however, had a smaller percentage of their land in legumes and probably depleted the fertility of their

soil more rapidly than the livestock farmers. In calculating net earnings no charge was made for fertility loss.

On rolling land where erosion is a problem and a large acreage of hay and pasture must be produced, the operator must organize around livestock in order to have a market for the roughages grown. On level land either a grain or a livestock organization may be chosen, the relative profitableness depending primarily on the operator's ability to convert feed into livestock. If his return for each $100 of feed fed is low, he will make more money by selling grain, but if his return is high he will make more money by selling livestock and livestock products. Under either system a high level of crop yields may be maintained by using sufficient legumes and fertilizers.

In central Illinois and on bottomlands farmers will continue to maintain grain farms because of the demand for corn for processing and for shipment to poultry and dairy farms in the eastern states as well as to adjoining areas short of feed. There is no region which has greater economic advantages in the production of cash corn than the level lands of north-central Illinois.

The use of general-purpose tractors and motor-operated equipment reduced the labor input on crops more than on livestock; from 1913 to 1937 the labor input per acre of corn was cut more than half, and the labor input per acre of wheat and soybeans was reduced by two-thirds. The introduction of hybrid corn and improved varieties of other grain crops during these years increased crop production without appreciably increasing cost. There were no comparable savings in livestock production.

Because of differences in soil conditions and markets, different parts of Illinois are adapted to different types of farming. Within any area, however, the organization of many farms can be profitably adjusted to any one of a number of types of production, depending on the ability of the individual farmer.

APPENDIX

TABLE 21.—THOUSANDS OF ANIMAL UNITS[a] ON ILLINOIS FARMS, 1926-1937

Type of animal	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Horses and mules	1 303	1 241	1 177	1 138	1 101	1 068	1 028	1 014	998	982	968	954
Dairy cows	1 039	1 018	987	977	1 026	1 067	1 118	1 159	1 221	1 231	1 169	1 146
Other cattle	630	595	544	570	598	622	675	732	746	713	781	752
Sheep	28	32	25	27	29	32	34	34	32	39	39	37
Hogs	3 865	4 097	4 588	4 221	3 841	3 841	4 263	4 817	4 576	3 054	3 358	3 526
Total	6 865	6 983	7 321	6 933	6 595	6 630	7 118	7 756	7 573	6 019	6 315	6 415

[a]An animal unit, as described by the U. S. Department of Agriculture, is calculated on a grain-consuming basis with the following weights given to each type of livestock—horses and mules, 1.14; dairy cows, 1.00; all other cattle, .51; sheep, .04; and hogs, .87.

TABLE 22.—CAPITAL INVESTED PER ILLINOIS ACCOUNTING FARM IN THE FARM BUSINESS, BY FARMING-TYPE AREAS, 1926-1937

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Weighted average
					Land				
1926	$25 386	$23 356	$34 300	$38 763	$24 400	$12 027	$10 619	$18 841	$25 871
1927	24 243	24 456	33 976	40 364	29 582	11 869	10 525	16 537	26 905
1928	23 926	22 191	32 633	40 178	30 256	12 706	10 839	14 699	26 598
1929	25 249	23 750	32 030	38 317	27 800	11 586	8 711	12 207	25 346
1930	23 683	23 419	28 321	37 823	27 697	11 471	9 777	12 834	24 763
1931	20 491	22 161	25 094	36 415	24 562	11 117	8 390	11 886	22 910
1932	19 589	19 506	22 093	33 076	21 447	10 180	7 454	8 524	20 482
1933	17 892	18 124	22 456	31 786	21 094	9 423	7 193	8 148	19 764
1934	18 474	17 688	21 090	27 873	20 802	9 521	7 599	7 878	18 543
1935	18 190	17 099	19 907	26 856	17 485	9 631	7 792	9 800	17 691
1936	15 887	16 399	21 914	28 213	18 594	9 880	7 810	9 498	18 291
1937	15 682	15 401	21 532	27 291	18 673	9 905	7 988	10 348	17 960
					Improvements				
1926	5 329	5 265	4 536	4 120	3 612	2 600	2 211	3 050	3 785
1927	5 962	5 928	4 611	4 161	4 208	2 639	2 086	2 620	3 958
1928	5 903	5 138	4 546	4 309	3 983	1 280	2 575	2 397	3 802
1929	6 037	6 043	4 690	4 679	3 909	2 611	2 359	2 234	4 105
1930	5 857	5 996	4 359	4 852	3 808	2 793	2 448	2 267	4 113
1931	5 921	5 692	4 249	4 492	3 658	2 725	2 277	2 308	3 922
1932	6 259	5 569	4 339	4 287	3 621	2 666	2 174	2 066	3 850
1933	5 587	5 303	4 385	4 084	3 347	2 619	1 990	1 958	3 659
1934	5 833	4 906	3 968	4 061	3 402	2 491	2 189	1 991	3 601
1935	5 824	4 922	3 736	3 875	3 109	2 472	2 270	2 156	3 497
1936	6 092	5 188	4 005	3 882	3 109	2 534	2 131	2 124	3 560
1937	5 896	4 821	3 915	3 905	3 357	2 485	1 903	2 392	3 513
					Livestock				
1926	3 613	3 979	3 946	2 381	2 771	1 881	1 832	2 281	2 728
1927	4 149	4 391	4 117	2 661	2 705	1 804	1 726	1 999	2 852
1928	3 822	3 761	3 564	2 593	2 849	1 758	1 699	1 752	2 682
1929	4 123	4 443	3 812	2 637	2 794	1 958	1 768	1 679	2 831
1930	3 921	4 452	3 684	2 873	3 002	2 138	2 001	1 797	2 955
1931	3 606	3 806	3 006	2 249	2 440	1 836	1 625	1 549	2 437
1932	3 005	2 686	2 310	1 821	1 970	1 498	1 372	1 119	1 928
1933	2 460	2 229	2 162	1 633	1 712	1 359	1 227	912	1 699
1934	2 289	2 103	1 927	1 534	1 697	1 220	1 149	1 004	1 594
1935	2 805	2 359	2 115	1 620	1 589	1 282	1 315	1 200	1 721
1936	3 847	3 311	3 138	2 299	2 394	1 638	1 686	1 521	2 416
1937	3 691	3 259	2 832	2 253	2 573	1 708	1 593	1 721	2 375
					Machinery				
1926	1 817	1 377	1 563	1 545	1 179	1 137	737	1 019	1 306
1927	1 844	1 601	1 662	1 567	1 424	1 183	930	1 034	1 418
1928	1 777	1 533	1 643	1 627	1 515	2 623	1 003	1 075	1 598
1929	1 882	1 803	1 754	1 739	1 492	1 295	1 078	973	1 540
1930	1 969	1 911	1 640	2 013	1 637	1 368	1 085	1 117	1 649
1931	1 945	1 921	1 554	1 858	1 595	1 372	1 035	1 036	1 579
1932	1 893	1 698	1 494	1 743	1 494	1 263	809	767	1 444
1933	1 669	1 571	1 442	1 578	1 303	1 179	809	716	1 329
1934	1 646	1 445	1 308	1 421	1 270	1 127	804	632	1 241
1935	1 668	1 412	1 226	1 465	1 222	1 139	877	710	1 249
1936	1 726	1 621	1 637	1 738	1 467	1 250	931	918	1 464
1937	1 924	1 729	1 839	2 023	1 708	1 309	1 092	1 203	1 667

(*Table is concluded on next page*)

TABLE 22.—CAPITAL INVESTED PER ILLINOIS ACCOUNTING FARM IN THE FARM BUSINESS (*Concluded*)

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Weighted average
Feed and grains									
1926	$2 192	$2 056	$2 987	$2 780	$2 088	$1 590	$1 219	$1 697	$2 193
1927	1 894	2 088	2 464	2 743	1 914	1 525	1 235	1 619	2 067
1928	1 956	1 790	2 332	2 814	2 095	1 468	1 199	1 469	2 052
1929	2 397	2 440	2 823	3 069	2 364	1 792	1 152	1 255	2 330
1930	2 229	2 384	2 595	3 450	2 339	1 668	1 201	1 722	2 397
1931	2 158	2 220	1 958	2 389	1 812	1 367	960	1 167	1 841
1932	1 607	1 394	1 426	1 804	1 264	1 161	796	866	1 364
1933	1 103	999	992	1 228	920	883	582	559	960
1934	1 495	1 594	1 700	2 068	1 537	1 030	847	1 027	1 523
1935	1 694	1 931	1 869	2 226	1 342	1 329	1 272	1 769	1 733
1936	1 872	1 639	1 875	2 283	1 394	1 216	944	1 046	1 646
1937	2 336	2 210	2 198	2 496	1 606	1 356	1 143	1 421	1 920
Total investment									
1926	38 337	36 033	47 332	49 589	34 050	19 235	16 618	26 888	35 883
1927	38 092	38 464	46 830	51 496	39 833	19 020	16 502	23 809	37 200
1928	37 384	34 413	44 718	51 521	40 698	19 835	17 315	21 392	36 732
1929	39 688	38 479	45 109	50 441	38 359	19 242	15 068	18 348	36 152
1930	37 659	38 162	40 599	51 011	38 483	19 438	16 512	19 737	35 877
1931	34 121	35 800	35 861	47 403	34 067	18 417	14 287	17 946	32 689
1932	32 353	30 853	31 662	42 731	29 796	16 768	12 605	13 342	29 068
1933	28 711	28 226	31 437	40 309	28 376	15 463	11 801	12 293	27 411
1934	29 737	27 736	29 993	36 957	28 708	15 389	12 588	12 532	26 502
1935	30 181	27 723	28 853	36 042	24 747	15 853	13 526	15 635	25 891
1936	29 424	28 158	32 569	38 415	26 958	16 518	13 502	15 107	27 377
1937	29 529	27 420	32 316	37 968	27 917	16 763	13 719	17 085	27 435

TABLE 23.—CASH INCOME PER ILLINOIS ACCOUNTING FARM, BY SOURCES, 1926-1937

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Weighted average
Cattle									
1926	$1 002	$1 224	$1 980	$ 708	$1 198	$491	$486	$384	$ 943
1927	1 166	1 909	1 898	777	916	305	565	583	986
1928	1 410	1 253	1 583	774	1 392	371	544	661	970
1929	1 397	2 097	1 650	922	1 030	386	490	378	1 029
1930	1 005	1 883	1 322	818	931	387	435	319	889
1931	856	1 276	791	440	600	264	246	226	556
1932	892	1 160	864	538	559	261	199	182	568
1933	581	885	904	435	601	208	194	165	500
1934	718	1 092	1 035	611	756	242	222	161	623
1935	883	1 549	1 124	734	687	436	507	351	784
1936	938	1 725	1 584	1 051	1 069	422	553	556	1 018
1937	1 005	1 574	1 366	986	1 453	385	537	660	1 014
Hogs									
1926	718	2 760	2 977	1 173	2 379	593	1 131	1 518	1 654
1927	670	2 246	2 489	1 288	1 903	545	795	1 151	1 429
1928	815	1 914	2 677	1 242	2 054	460	767	1 268	1 431
1929	1 022	2 276	3 094	1 279	2 290	699	619	1 159	1 574
1930	947	2 046	2 826	1 345	2 376	622	902	1 229	1 581
1931	913	1 404	1 851	831	1 336	431	429	657	986
1932	588	760	1 107	461	892	233	313	353	592
1933	545	872	1 382	545	1 038	312	386	438	703
1934	619	1 054	1 536	693	1 170	331	489	563	827
1935	547	1 603	2 044	955	1 364	517	901	1 033	1 144
1936	769	1 916	2 456	1 142	1 635	626	946	850	1 341
1937	595	1 678	2 097	1 094	1 748	593	834	767	1 239
Poultry and eggs									
1926	305	321	271	322	274	521	357	417	337
1927	299	296	277	293	261	412	367	439	317
1928	356	383	324	351	287	462	402	480	367
1929	387	414	362	358	334	538	507	494	410
1930	346	349	241	281	255	500	388	387	326
1931	309	291	196	209	182	368	325	349	258
1932	248	215	145	174	138	286	276	238	204
1933	226	171	135	174	131	273	313	247	201
1934	239	234	169	212	159	298	371	280	239
1935	292	295	222	290	209	420	499	370	320
1936	357	265	222	259	211	403	412	359	297
1937	276	288	218	288	224	387	416	354	302
Dairy sales									
1926	2 503	925	300	394	296	875	283	272	572
1927	2 985	1 058	322	487	425	975	501	522	714
1928	2 297	1 177	463	551	448	976	499	342	716
1929	2 539	1 193	475	519	431	1 099	442	391	729
1930	2 160	968	345	464	414	929	336	546	622
1931	1 702	657	239	360	332	633	287	234	460
1932	1 487	477	185	278	267	464	291	172	373
1933	1 362	462	226	256	251	478	440	212	387
1934	1 401	584	245	307	320	499	311	190	409
1935	2 045	667	277	368	362	563	310	222	489
1936	2 793	964	297	411	360	677	302	272	588
1937	3 088	1 000	355	492	473	836	292	225	668

(*Table is concluded on next page*)

TABLE 23.—CASH INCOME PER ILLINOIS ACCOUNTING FARM (*Concluded*)

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Weighted average
				Feed and grains					
1926	$1 148	$319	$1 200	$2 234	$1 274	$940	$723	$1 451	$1 310
1927	849	397	1 137	2 310	1 296	959	642	1 138	1 292
1928	867	361	1 344	2 842	1 762	755	492	840	1 469
1929	909	568	1 489	2 883	1 764	791	522	819	1 530
1930	849	548	1 101	2 556	1 509	716	430	737	1 323
1931	506	387	533	1 389	680	489	345	453	732
1932	394	264	443	1 057	592	359	243	377	567
1933	453	455	691	1 396	880	560	262	569	785
1934	560	567	1 011	2 352	1 489	898	562	944	1 286
1935	451	698	992	2 120	1 225	825	518	1 080	1 181
1936	640	760	1 416	3 258	1 557	923	563	1 160	1 629
1937	719	711	1 575	2 657	1 575	1 206	654	1 505	1 548
				Other sources					
1926	258	237	344	237	338	236	444	273	300
1927	212	337	459	329	351	292	341	269	339
1928	338	321	404	362	426	216	270	266	338
1929	393	448	442	360	373	217	277	228	350
1930	278	322	316	362	364	195	226	214	303
1931	221	267	238	226	276	228	278	179	245
1932	246	229	201	216	204	195	167	110	201
1933	264	238	314	254	229	166	176	100	230
1934	297	322	333	345	334	241	262	233	308
1935	501	413	501	472	443	332	338	279	424
1936	415	453	643	586	568	386	370	252	500
1937	396	514	720	609	602	425	374	439	538
				Total income					
1926	5 934	5 786	7 072	5 068	5 759	3 656	3 424	4 315	5 116
1927	6 181	6 243	6 582	5 484	5 152	3 488	3 211	4 102	5 077
1928	6 083	5 409	6 795	6 122	6 369	3 240	2 974	3 857	5 291
1929	6 647	6 996	7 512	6 321	6 222	3 730	2 857	3 469	5 622
1930	5 585	6 116	6 151	5 826	5 849	3 349	2 717	3 432	5 044
1931	4 507	4 282	3 848	3 455	3 406	2 413	1 910	2 098	3 237
1932	3 855	3 105	2 945	2 724	2 652	1 798	1 489	1 432	2 505
1933	3 431	3 083	3 652	3 060	3 130	1 997	1 771	1 731	2 806
1934	3 834	3 853	4 329	4 520	4 228	2 509	2 217	2 371	3 692
1935	4 719	5 225	5 160	4 939	4 290	3 093	3 073	3 335	4 342
1936	5 912	6 083	6 618	6 707	5 400	3 437	3 146	3 449	5 373
1937	6 079	5 765	6 331	6 126	6 075	3 832	3 107	3 950	5 309

TABLE 24.—CASH BUSINESS EXPENDITURES PER ILLINOIS ACCOUNTING FARMS 1926-1937

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Weighted average
				Improvements					
1926	$214	$217	$267	$228	$235	$237	$164	$333	$228
1927	282	278	237	357	243	242	170	246	267
1928	257	233	268	229	213	370	184	109	237
1929	289	287	287	309	264	279	158	169	264
1930	278	290	232	278	267	204	139	146	237
1931	231	157	115	94	127	124	95	78	118
1932	122	83	62	76	69	78	58	53	73
1933	153	108	103	89	89	71	77	99	93
1934	132	166	127	127	131	107	107	118	127
1935	321	229	175	183	163	130	187	132	185
1936	320	259	257	221	187	193	144	132	212
1937	417	378	314	306	214	210	186	191	274
				Machinery					
1926	751	550	644	496	514	441	379	428	512
1927	668	616	551	558	518	413	335	443	508
1928	688	520	637	631	558	194	389	285	517
1929	783	696	760	822	692	480	300	364	646
1930	610	555	553	692	645	399	293	370	543
1931	508	395	309	349	392	284	232	206	333
1932	362	292	245	296	272	200	169	151	254
1933	417	309	323	383	308	234	170	195	303
1934	460	357	407	505	482	348	222	261	401
1935	690	648	769	867	663	478	494	579	683
1936	904	843	954	1 093	920	551	506	458	841
1937	961	969	1 103	1 212	996	762	569	573	956
				Feed					
1926	482	580	667	258	738	506	462	317	484
1927	632	970	778	412	813	482	412	445	593
1928	703	894	1 118	377	1 054	508	592	622	697
1929	620	754	962	354	810	441	504	516	592
1930	522	659	918	464	868	523	601	439	630
1931	434	395	547	200	416	271	252	225	326
1932	361	263	301	119	250	125	135	110	193
1933	280	275	362	137	318	197	232	144	236
1934	536	400	668	308	594	291	327	139	413
1935	440	570	726	376	630	382	437	312	488
1936	504	697	917	429	847	447	570	554	612
1937	587	569	864	479	1 121	532	548	572	656
				Livestock purchased					
1926	812	736	1 482	570	928	309	609	316	740
1927	831	919	1 248	659	854	237	278	429	687
1928	1 072	923	1 294	535	1 069	281	455	643	745
1929	955	1 410	1 235	567	924	285	264	325	723
1930	644	1 036	851	486	660	252	241	399	555
1931	583	698	524	316	380	215	156	211	365
1932	609	719	560	337	379	219	151	140	376
1933	368	467	585	224	360	126	122	119	292
1934	399	516	469	334	363	168	165	181	327
1935	887	940	836	547	476	335	340	289	569
1936	765	922	853	632	646	321	296	343	602
1937	745	857	921	681	864	285	375	366	657
				Livestock expense					
1926	50	69	83	47	78	33	42	27	55
1927	39	81	72	50	63	30	39	36	53
1928	38	53	59	41	57	25	32	27	43
1929	47	60	60	44	53	24	18	23	42
1930	69	75	62	53	56	27	19	48	49
1931	62	61	58	38	45	30	15	20	40
1932	47	40	40	31	33	21	19	18	31
1933	46	36	37	33	37	21	20	17	31
1934	46	39	46	35	36	22	20	17	33
1935	65	43	42	37	32	30	26	28	36
1936	126	73	49	41	30	26	22	20	43
1937	87	50	52	39	45	28	19	21	40

(*Table is concluded on next page*)

TABLE 24.—CASH BUSINESS EXPENDITURES PER ILLINOIS ACCOUNTING FARM (*Concluded*)

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Weighted average
Crop expense									
1926	$175	$146	$200	$199	$177	$183	$141	$266	$182
1927	192	197	202	224	194	168	151	187	194
1928	207	177	210	238	233	187	178	176	209
1929	207	202	232	247	236	159	139	169	208
1930	229	205	187	225	221	184	160	158	201
1931	188	157	140	179	168	174	158	162	166
1932	131	113	93	132	106	98	73	89	107
1933	103	92	97	118	113	87	54	97	98
1934	154	122	125	171	161	142	107	154	144
1935	232	169	156	225	173	142	119	120	174
1936	238	188	217	267	210	160	126	153	205
1937	307	257	304	331	283	231	190	240	276
Labor									
1926	431	258	515	394	455	190	153	369	348
1927	456	377	489	421	530	186	136	294	369
1928	440	269	467	460	552	207	192	218	376
1929	460	353	442	456	449	205	183	209	364
1930	372	322	380	422	459	189	163	253	337
1931	330	243	285	322	317	182	149	173	262
1932	279	173	194	230	247	141	93	107	189
1933	218	139	209	190	208	109	93	99	164
1934	217	136	182	217	209	139	127	157	180
1935	380	207	252	290	238	146	156	232	236
1936	433	246	291	326	260	164	149	201	261
1937	468	251	335	376	351	196	172	291	306
Taxes									
1926	317	274	373	418	331	186	177	303	313
1927	347	324	383	444	371	190	201	282	337
1928	325	270	363	435	387	188	200	246	326
1929	304	290	347	417	346	166	161	219	305
1930	328	295	346	449	356	177	182	260	322
1931	301	325	326	458	335	181	153	234	315
1932	320	295	294	419	327	167	133	175	290
1933	265	253	280	358	282	148	113	163	253
1934	248	206	219	303	240	116	115	130	214
1935	250	204	214	281	215	133	109	149	206
1936	279	217	258	319	245	137	115	158	231
1937	253	212	257	319	256	150	121	181	234
Miscellaneous									
1926	92	28	27	31	34	30	22	20	32
1927	99	33	32	31	29	22	20	28	32
1928	75	36	29	29	28	25	21	22	30
1929	76	43	30	35	31	24	20	20	33
1930	33	31	30	32	34	28	23	23	30
1931	32	28	26	28	29	26	23	21	27
1932	30	26	23	25	26	26	19	19	24
1933	29	28	23	26	26	24	19	18	24
1934	31	26	26	30	28	26	21	19	26
1935	31	27	27	29	28	27	27	23	28
1936	32	27	27	31	27	26	20	23	27
1937	30	25	26	28	28	24	18	21	25
Total expenditures									
1926	3 324	2 858	4 258	2 641	3 490	2 115	2 149	2 379	2 894
1927	3 546	3 795	3 992	3 156	3 615	1 970	1 742	2 390	3 040
1928	3 805	3 375	4 445	2 975	4 151	1 985	2 243	2 348	3 180
1929	3 741	4 095	4 355	3 251	3 805	2 063	1 747	2 014	3 177
1930	3 085	3 468	3 559	3 101	3 566	1 983	1 821	2 096	2 904
1931	2 669	2 459	2 330	1 984	2 209	1 487	1 233	1 330	1 952
1932	2 261	2 004	1 812	1 665	1 709	1 075	850	862	1 537
1933	1 879	1 707	2 019	1 558	1 741	1 017	900	951	1 494
1934	2 223	1 968	2 269	2 030	2 244	1 359	1 211	1 176	1 865
1935	3 296	3 037	3 197	2 835	2 618	1 803	1 895	1 864	2 605
1936	3 601	3 472	3 823	3 359	3 372	2 025	1 948	2 042	3 034
1937	3 855	3 568	4 176	3 771	4 158	2 418	2 198	2 456	3 424

TABLE 25.—CASH BALANCE, OPERATOR'S AND FAMILY LABOR, INVENTORY INCREASES, AND NET FARM INCOME, ILLINOIS ACCOUNTING FARMS, 1926-1937

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Weighted average
Cash balance									
1926	$2 610	$2 928	$2 814	$2 427	$2 269	$1 541	$1 275	$1 936	$2 222
1927	2 635	2 448	2 590	2 328	1 537	1 518	1 469	1 712	2 037
1928	2 278	2 034	2 350	3 147	2 218	1 255	731	1 509	2 111
1929	2 906	2 901	3 157	3 070	2 417	1 667	1 110	1 455	2 445
1930	2 500	2 648	2 592	2 725	2 283	1 366	896	1 336	2 140
1931	1 838	1 823	1 518	1 471	1 197	926	677	768	1 285
1932	1 594	1 101	1 133	1 059	943	723	639	570	968
1933	1 552	1 376	1 633	1 502	1 389	980	871	780	1 312
1934	1 611	1 885	2 060	2 490	1 984	1 150	1 006	1 195	1 827
1935	1 423	2 188	1 963	2 104	1 672	1 290	1 178	1 471	1 737
1936	2 311	2 611	2 795	3 348	2 028	1 412	1 198	1 407	2 339
1937	2 224	2 197	2 155	2 355	1 917	1 414	909	1 494	1 885
Labor of operator and family									
1926	1 001	967	866	876	734	893	655	766	833
1927	1 005	966	894	917	838	940	812	771	893
1928	1 016	997	904	923	863	918	796	854	902
1929	981	983	916	899	897	894	791	783	892
1930	992	961	868	865	867	869	755	760	861
1931	790	822	729	734	752	681	687	627	730
1932	732	716	658	676	670	633	576	520	654
1933	744	728	659	705	677	649	608	532	671
1934	704	720	680	692	725	644	582	515	669
1935	762	710	672	687	708	654	586	494	668
1936	774	806	756	780	778	717	642	517	740
1937	796	777	769	757	761	714	640	557	733
Cash balance less unpaid labor									
1926	1 609	1 961	1 948	1 551	1 535	648	620	1 170	1 389
1927	1 630	1 482	1 696	1 411	699	578	657	941	1 144
1928	1 262	1 037	1 446	2 224	1 355	337	−65	655	1 209
1929	1 925	1 918	2 241	2 171	1 520	773	319	672	1 553
1930	1 508	1 687	1 724	1 860	1 416	497	141	576	1 279
1931	1 048	1 001	789	737	445	245	−10	141	555
1932	862	385	475	383	273	90	63	50	314
1933	808	648	974	797	712	331	263	248	641
1934	907	1 165	1 380	1 798	1 259	506	424	680	1 158
1935	661	1 478	1 291	1 417	964	636	592	977	1 069
1936	1 537	1 805	2 039	2 568	1 250	695	556	890	1 599
1937	1 428	1 420	1 386	1 598	1 156	700	269	937	1 152
Inventory increases									
1926	166	−99	−47	187	−188	12	184	375	63
1927	222	−102	−107	499	394	224	−198	−70	169
1928	887	881	1 101	645	879	755	455	−18	730
1929	232	329	436	568	597	407	282	526	449
1930	−302	−625	−967	−1 088	−603	−306	−379	−630	−701
1931	−1 403	−1 785	−1 576	−1 292	−1 195	−475	−247	−704	−1 097
1932	−1 140	−971	−944	−1 001	−724	−522	−446	−412	−799
1933	88	530	719	755	490	53	42	433	454
1934	227	568	560	561	359	419	697	827	530
1935	1 278	959	1 055	946	887	382	346	−64	779
1936	1 237	1 382	903	853	687	500	458	620	802
1937	171	228	1 067	1 029	857	615	461	457	727

(*Table is concluded on next page*)

TABLE 25.—CASH BALANCE, OPERATORS' AND FAMILY LABOR, INVENTORY INCREASES, AND NET FARM INCOME *(Concluded)*

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Weighted average
					Net income from investment				
1926	$1 775	$1 862	$1 901	$1 738	$1 347	$ 660	$ 804	$1 545	$1 432
1927	1 852	1 380	1 589	1 910	1 093	802	459	871	1 313
1928	2 149	1 918	2 547	2 869	2 234	1 092	390	637	1 939
1929	2 157	2 247	2 677	2 739	2 117	1 180	601	1 198	2 002
1930	1 206	1 062	757	772	813	191	−238	−54	578
1931	−355	−784	−787	−555	−750	−230	−257	−563	−543
1932	−278	−586	−469	−618	−451	−432	−383	−362	−485
1933	896	1 178	1 693	1 552	1 202	384	305	681	1 094
1934	1 134	1 733	1 940	2 359	1 618	925	1 121	1 507	1 688
1935	1 939	2 437	2 346	2 363	1 851	1 018	938	913	1 848
1936	2 774	3 187	2 942	3 421	1 937	1 195	1 014	1 510	2 401
1937	1 599	1 648	2 453	2 627	2 013	1 315	730	1 394	1 879
					Earned value of land and buildings				
1926	147	169	146	118	119	44	45	89	114
1927	147	110	119	96	35	43	50	75	84
1928	100	71	99	166	90	5	−27	46	93
1929	162	147	163	158	104	61	13	57	123
1930	117	124	120	120	91	27	− 7	36	92
1931	69	60	43	33	13	2	−18	− 5	27
1932	54	10	19	9	3	−12	− 9	− 9	7
1933	55	42	67	45	43	18	14	14	41
1934	62	94	104	121	83	37	28	55	88
1935	35	123	96	95	66	47	42	72	81
1936	121	152	152	173	79	48	37	71	123
1937	112	109	92	99	70	45	7	63	80

TABLE 26.—LAND USE ON ILLINOIS ACCOUNTING FARMS, BY FARMING-TYPE AREAS AND BY YEARS, 1926-1937
(Acres per farm)

Crop	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	Average
Area 1													
Corn	44	46	54	57	61	61	62	60	38	50	58	59	54.0
Oats	27	21	24	28	28	30	28	28	30	31	28	24	27.4
Wheat	14	16	9	9	10	7	7	6	4	2	2	3	7.5
Barley	1	10	17	19	16	17	20	16	..	..	9	10	11.2
Soybeans	..	..	1	..	..	1	1	1	3	4	2	3	1.2
Other grains	..	..	4	..	2	..	..	3	9	..	..	1	1.6
Total grains	86	93	109	113	117	116	118	114	84	87	99	100	102.9
Total hay	33	30	23	23	23	24	26	27	36	35	30	27	28.1
Other crops	2	3	3	2	1	2	3	3	21	15	3	2	5.1
Total crops	121	126	135	138	141	142	147	144	141	137	132	129	136.1
Idle land	..	..	..	..	..	..	..	1	3	..	1	1	.5
Total tillable pasture	17	14	15	20	21	20	20	17	27	22	23	18	19.5
Total tillable land	138	140	150	158	162	162	167	162	171	159	156	148	156.1
Nontillable land	29	28	26	28	27	31	32	35	34	40	37	36	31.9
Total acres	167	168	176	186	189	193	199	197	205	199	193	184	188.0
Percent tillable	82.6	83.3	85.2	84.9	85.7	83.9	83.9	82.2	83.4	80.0	80.8	80.4	83.0
Area 2													
Corn	49	56	52	62	65	68	68	62	44	47	59	61	57.7
Oats	27	24	24	28	30	31	29	28	27	34	31	33	28.8
Wheat	3	4	4	3	4	5	3	4	3	2	2	2	3.3
Barley	9	10	11	11	11	10	11	10	9	..	..	4	8.0
Soybeans	..	..	..	..	..	..	1	1	2	5	2	3	1.1
Other grains	1	1	3	3	2	2	2	2	1	1	3	1	1.8
Total grains	89	95	94	107	112	116	114	107	86	89	97	104	100.7
Total hay	30	31	30	29	25	25	24	25	32	28	27	21	27.4
Other crops	1	4	2	3	2	2	2	3	6	15	4	4	4.0
Total crops	120	130	126	139	139	143	140	135	124	132	128	129	132.1
Idle land	..	..	..	..	..	..	..	..	2	1	..	..	.3
Total tillable pasture	30	26	26	25	27	26	25	26	33	29	29	25	27.2
Total tillable land	150	156	152	164	166	169	165	161	159	162	157	154	159.6
Nontillable land	38	40	41	38	36	33	34	33	34	32	37	41	36.4
Total acres	188	196	193	202	202	202	199	194	193	194	194	195	196.0
Percent tillable	79.8	79.6	78.8	81.2	82.2	83.7	82.9	83.0	82.4	83.3	81.2	79.2	81.4

(Table is continued on next page)

TABLE 20.—LAND USE ON ILLINOIS ACCOUNTING FARMS (*Continued*)

(Acres per farm)

Crop	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	Average
Area 3													
Corn	76	75	74	78	79	82	82	80	56	57	79	80	74.8
Oats	31	29	26	28	31	30	34	32	27	25	27	31	29.3
Wheat	10	11	16	11	13	11	6	6	7	8	7	12	9.7
Barley	..	..	..	..	..	..	..	..	..	..	..	..	....
Soybeans	..	..	2	3	4	6	3	6	9	15	9	11	5.8
Other grains	..	3	9	6	5	5	4	6	4	1	1	2	3.8
Total grains	117	118	127	126	132	134	129	130	103	106	123	136	123.4
Total hay	29	33	24	23	22	18	22	22	31	28	26	18	24.7
Other crops	3	..	..	6	3	2	2	4	5	7	6	4	3.5
Total crops	149	151	151	155	157	154	153	156	139	141	155	158	151.6
Idle land	..	..	..	..	..	..	..	..	3	2	1	1	.5
Total tillable pasture	28	29	27	27	25	26	29	27	38	26	28	23	27.8
Total tillable land	177	180	178	182	182	180	182	183	180	169	184	182	179.9
Nontillable land	32	35	38	41	40	36	39	39	38	46	40	45	39.1
Total acres	209	215	216	223	222	216	221	222	218	215	224	227	219.0
Percent tillable	84.7	83.7	82.4	81.6	82.7	83.3	82.4	82.4	82.6	78.6	82.1	80.3	82.1
Area 4													
Corn	81	79	93	88	95	102	109	102	72	74	91	90	89.8
Oats	42	41	44	43	43	39	49	50	39	39	34	34	41.6
Wheat	19	21	11	19	24	24	14	13	21	16	19	25	18.7
Barley	..	..	..	..	..	..	..	..	..	..	..	1	.1
Soybeans	..	..	3	5	5	17	16	16	20	35	28	29	14.4
Other grains	..	8	8	8	6	2	2	3	4	..	1	1	3.5
Total grains	142	149	159	163	173	184	190	184	156	164	173	180	168.1
Total hay	21	22	16	16	17	16	16	16	25	20	21	15	18.4
Other crops	1	3	7	5	5	4	2	7	8	9	11	9	6.0
Total crops	164	174	182	184	195	204	208	207	189	193	205	204	192.5
Idle land	..	..	..	..	..	..	..	1	..	1	1	..	.2
Total tillable pasture	23	25	24	26	25	27	27	30	44	28	31	26	28.0
Total tillable land	187	199	206	210	220	231	235	238	233	222	237	230	220.7
Nontillable land	19	23	20	17	21	19	16	19	23	21	23	25	20.5
Total acres	206	222	226	227	241	250	251	257	256	243	260	255	241.2
Percent tillable	90.8	89.5	91.2	92.5	91.3	92.4	93.6	92.6	91.0	91.3	91.0	90.4	91.5

(*Table is continued on next page*)

TABLE 26.—LAND USE ON ILLINOIS ACCOUNTING FARMS (*Continued*)
(Acres per farm)

Crop	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	Average
Area 5													
Corn	60	65	75	67	74	77	83	72	56	47	68	61	67.0
Oats	18	20	26	19	22	21	29	25	18	20	20	20	21.6
Wheat	29	31	26	38	35	33	24	24	27	29	32	43	30.9
Barley	..	..	..	..	..	..	..	..	..	..	..	1	.1
Soybeans	..	..	6	7	11	14	11	13	23	20	16	14	11.2
Other grains	..	..	3	4	2	2	1	2	2	..	1	1	1.5
Total grains	107	116	136	135	144	147	148	136	126	116	137	140	132.3
Total hay	20	25	21	20	19	17	20	19	30	25	27	20	21.8
Other crops	5	10	7	3	1	4	4	5	7	8	6	6	5.6
Total crops	132	151	164	158	164	168	172	160	163	149	170	166	159.7
Idle land	..	..	..	..	..	..	..	3	6	4	1	..	1.1
Total tillable pasture	33	35	29	33	31	27	32	35	44	33	33	31	33.1
Total tillable land	165	186	193	191	195	195	204	198	213	186	204	197	193.9
Nontillable land	42	38	37	38	40	36	40	39	35	42	47	48	40.2
Total acres	207	224	230	229	235	231	244	237	248	228	251	245	234.1
Percent tillable	79.7	83.0	83.9	83.4	83.0	84.4	83.6	83.5	85.9	81.4	81.1	80.3	82.8
Area 6													
Corn	35	28	38	33	42	41	43	34	30	26	38	39	35.5
Oats	25	14	24	14	22	23	23	15	17	19	20	18	19.5
Wheat	28	40	26	41	35	35	32	36	35	37	41	46	36.0
Barley	..	..	..	..	..	..	..	..	..	..	..	1	....
Soybeans	..	..	..	..	2	4	2	1	3	4	2	3	1.9
Other grains	..	..	..	6	1	..	..	..	1	1	1	1	.9
Total grains	88	82	88	94	102	103	100	86	86	87	102	108	93.8
Total hay	30	23	25	21	23	24	24	27	25	27	29	26	25.4
Other crops	3	6	8	5	3	4	4	8	6	11	5	9	5.8
Total crops	121	111	121	120	128	131	128	121	117	125	136	143	125.0
Idle land	..	3	..	..	..	..	..	2	..	2	1	1	.8
Total tillable pasture	26	21	25	24	25	26	27	31	38	31	32	31	28.1
Total tillable land	147	135	146	144	153	157	155	154	155	158	169	175	153.9
Nontillable land	43	28	27	26	26	26	28	29	29	31	36	38	30.6
Total acres	190	163	173	170	179	183	183	183	184	189	205	213	184.5
Percent tillable	77.4	83.0	84.4	84.7	85.5	85.8	84.7	84.2	84.1	83.4	82.8	82.0	83.4

(*Table is concluded on next page*)

TABLE 26.—LAND USE ON ILLINOIS ACCOUNTING FARMS (*Concluded*)

(Acres per farm)

Crop	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	Average
Area 7													
Corn	32	31	40	34	42	42	39	33	34	33	38	44	36.9
Oats	12	6	19	10	16	17	17	9	14	9	14	13	12.8
Wheat	10	13	8	14	17	20	15	18	19	21	22	20	16.5
Barley	..	..	..	1	..	..	..	..	..	..	..	..	.1
Soybeans	4	3	3	3	2	2	1	1	3	2	1	4	2.5
Other grains	1	1	..	..	..	1	1	1	2	1	..	1	.7
Total grains	59	54	70	62	77	82	73	62	72	66	75	82	69.5
Total hay	45	41	33	38	32	34	30	32	36	39	34	41	36.2
Other crops	8	9	9	7	7	10	7	4	5	5	8	6	7.1
Total crops	112	104	112	107	116	126	110	98	113	110	117	129	112.8
Idle land	..	4	1	7	3	3	1	7	4	11	5	1	4.0
Total tillable pasture	57	46	47	44	45	42	44	46	48	45	43	39	45.4
Total tillable land	169	154	160	158	164	171	155	151	165	166	165	169	162.2
Nontillable land	25	31	29	27	32	35	37	32	37	33	39	40	33.1
Total acres	194	185	189	185	196	206	192	183	202	199	204	209	195.3
Percent tillable	87.2	83.3	84.7	85.4	83.5	83.1	80.6	82.2	81.8	83.3	81.0	80.8	83.1
Area 8													
Corn	55	40	49	44	56	57	48	44	36	43	49	53	47.8
Oats	23	7	20	12	19	15	17	13	14	13	10	11	14.6
Wheat	26	43	23	26	25	34	30	38	33	38	36	44	33.0
Barley	..	..	..	..	..	..	..	..	..	..	..	..	....
Soybeans	2	2	1	1	2	3	1	2	5	3	5	3	2.5
Other grains	4	..	..	1	..	1	1	3	3	1	1	1	1.2
Total grains	110	92	93	84	102	110	97	100	91	98	101	112	99.1
Total hay	20	26	26	21	22	19	21	21	25	25	26	26	23.2
Other crops	3	2	4	6	7	5	8	2	8	5	7	11	5.7
Total crops	133	120	123	111	131	134	126	123	124	128	134	149	128.0
Idle land	3	6	4	1	1	..	2	5	8	12	4	..	3.7
Total tillable pasture	39	33	30	32	33	40	39	50	40	46	43	43	39.1
Total tillable land	175	159	157	144	165	174	167	178	172	186	181	192	170.8
Nontillable land	32	34	25	25	25	25	28	21	28	33	21	36	27.8
Total acres	207	193	182	169	190	199	195	199	200	219	202	228	198.6
Percent tillable	84.3	82.6	86.4	84.9	87.0	87.4	85.6	89.5	85.9	85.0	89.4	84.2	86.0

TABLE 27.—YIELDS OF CORN, OATS, AND WHEAT ON ILLINOIS ACCOUNTING FARMS, BY FARMING-TYPE AREAS, 1926-1937

(Bushels per acre)

Year	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Weighted average
					Corn				
1926	38.0	43.4	47.3	47.8	40.8	24.7	32.2	38.3	41.8
1927	34.5	37.7	39.5	39.8	36.4	31.4	27.8	36.4	36.7
1928	43.6	49.8	52.2	48.0	46.4	41.6	25.3	31.7	44.9
1929	40.2	45.7	46.5	43.9	44.8	39.2	29.2	45.0	42.5
1930	37.7	44.4	38.6	35.9	33.2	22.2	15.6	20.2	33.0
1931	41.1	46.1	46.8	44.4	40.2	33.6	33.9	15.5	41.1
1932	46.6	60.0	59.6	54.0	55.6	42.5	37.7	38.5	52.1
1933	35.6	50.8	46.7	29.1	37.6	23.2	32.9	39.9	35.8
1934	20.0	37.0	26.4	27.2	16.9	16.4	30.2	36.4	26.0
1935	54.2	54.0	50.2	52.6	40.2	37.1	33.9	33.8	46.7
1936	37.8	42.3	27.0	27.8	18.0	17.8	23.3	21.6	26.7
1937	47.6	58.0	65.8	59.6	56.9	40.8	36.9	47.2	54.9
					Oats				
1926	45.8	33.6	35.1	36.1	26.8	20.7	14.4	21.7	30.6
1927	45.4	36.5	35.8	31.6	17.0	10.9	8.8	8.3	26.2
1928	47.7	46.9	48.0	43.0	41.4	37.2	33.7	34.7	42.4
1929	35.6	41.5	43.9	38.9	35.7	22.0	17.9	24.7	35.1
1930	48.9	51.2	37.9	38.0	32.9	26.6	21.3	23.4	35.9
1931	32.0	44.6	42.6	44.3	41.0	37.7	33.9	42.4	41.3
1932	43.9	50.4	46.0	45.7	38.6	29.5	20.2	23.7	40.3
1933	24.2	33.7	33.1	20.1	26.2	16.2	9.2	10.1	22.7
1934	14.2	11.5	6.9	14.0	10.4	18.7	18.3	21.6	13.3
1935	40.7	42.2	32.5	34.3	30.9	26.5	14.5	14.9	31.2
1936	40.7	42.4	32.3	32.0	29.5	24.5	18.5	29.4	31.0
1937	48.8	51.1	62.7	52.8	50.6	37.0	30.3	29.7	49.1
					Wheat				
1926	26.4	....	19.1	24.0	18.8	20.5	19.8	25.2	....
1927	23.9	....	16.5	16.9	13.7	12.7	11.8	13.2	....
1928	24.4	....	22.1	17.6	17.4	8.2	6.9	6.4	....
1929	....	....	17.8	13.3	18.6	12.1	12.3	17.1	....
1930	9.0	....	23.1	20.5	21.4	18.7	16.2	15.2	....
1931	....	....	22.6	25.7	26.7	27.8	28.3	26.3	....
1932	....	....	....	20.4	17.4	18.3	14.6	14.6	....
1933	....	....	....	20.5	18.4	16.9	13.9	13.1	....
1934	....	....	....	20.1	23.4	22.7	19.8	22.2	....
1935	....	....	....	17.6	18.3	15.8	12.4	11.4	....
1936	....	....	....	23.9	20.4	16.9	15.6	15.7	....
1937	....	....	19.8	15.9	19.3	22.0	16.6	22.0	....

TABLE 28.—LAND USE ON ILLINOIS ACCOUNTING FARMS EXPRESSED AS PERCENTAGE OF TOTAL ACRES, BY FARMING-TYPE AREAS, 1926-1937

Item	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Corn	28.7	29.4	34.2	37.2	28.6	19.2	18.9	24.1
Oats	14.6	14.7	13.4	17.2	9.2	10.6	6.6	7.4
Wheat	4.0	1.7	4.4	7.8	13.2	19.5	8.4	16.6
Barley	6.0	4.1	....	....	....	....	....	....
Soybeans	.6	.6	2.6	6.0	4.8	1.0	1.3	1.2
Other grains	.8	.9	1.7	1.5	.7	.5	.4	.6
Total grains	54.7	51.4	56.3	69.7	56.5	50.8	35.6	49.9
Hay	15.0	14.0	11.3	7.6	9.3	13.8	18.5	11.6
Other crops	2.7	2.0	1.6	2.5	2.4	3.2	3.6	2.9
Total crops	72.4	67.4	69.2	79.8	68.2	67.8	57.7	64.4
Idle land	.2	.1	.2	.1	.5	.4	2.1	1.9
Tillable pasture	10.4	13.9	12.7	11.6	14.1	15.2	23.3	19.7
Total tillable land	83.0	81.4	82.1	91.5	82.8	83.4	83.1	86.0
Nontillable land	17.0	18.6	17.9	8.5	17.2	16.6	16.9	14.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 29.—NUMBER OF ILLINOIS ACCOUNTING RECORDS, 1926-1935, GROUPED BY FARMING-TYPE AREAS AND BY SOURCE OF INCOME

Area	Grain 60%+	Grain 40-59%	Hogs 40%+	Cattle 40%+	Dairy sales 40%+	Poultry 40%+	Hogs and cattle, each 40%	All less than 40%	Other classifications	Total farms
1	9	20	33	15	546	6	3	65	8	705
2	46	107	648	219	377	11	52	489	17	1 966
3	255	423	1 866	262	114	4	105	550	69	3 648
4	1 936	1 489	1 159	283	533	18	58	1 053	91	6 620
5	230	247	990	86	177	9	43	401	46	2 229
6	111	257	101	19	507	43	2	641	15	1 696
7	47	67	113	14	98	40	4	280	8	671
8	45	42	100	9	32	30	4	138	11	411
Total	2 679	2 652	5 010	907	2 384	161	271	3 617	265	17 946

10,050—8-42—24213